





















Thomas L. Judge, Governor

ANNUAL REVIEW FOR THE YEAR 1975

Relating to

OIL AND GAS

Volume 19

BOARD OF OIL AND GAS CONSERVATION

R. A. CAMPBELL, Chairman 122 North 27th Street Billings, Montana 59101

C. J. IVE ASON, Vice-Chairman Whitlash, Montaga 59544

MILTON G. ANDERSON P. O. Nox 73 Sidney, Montana 59270

PAUL C. BUNN Chester, Montana 59522

JOHN P. MOORE P. O. Box 997 Cut Bunk, Montana 59427



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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Thomas L. Judge, Governor



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1975 SUMMARY OF YEAR ACTIVITIES

Oil Imported (Refined)

Canadian - 19,373,228 Wyoming - 19,796,361

39,169,589 Bbls.

Gas Withdrawals

Natural 40,659,602 Associated 3,013,108

43,672,602 Mcf.

Averages: (365 days)

Oil Produced 89,983 Bbls. Oil Imported 107,314 Bbls. Oil Exported 84,787 Bbls. Natural Gas 119,651 Mcf.

Board of Oil and Gas Conservation of the State of Montana

Thomas L. Judge, Governor

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DONALD A. GARRITY, ATTORNEY FIRST SECURITY BANK BUILDING HELENA, MONTANA 59601

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15 POLY DRIVE
BILLINGS, MONTANA 59101

CHARLES G. MAIO, GEOLOGIST 15 POLY DRIVE BILLINGS, MONTANA 59101



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JOHN P. MOORE
P. O. BOX 997
CUT BANK, MONTANA 59427

Administrative Office	325 Fuller Avenue, Helena, Montana 59601
Technical Office and	
Southern District Field Office	15 Poly Drive, Billings, Montana 59101
Northern District Field Office	218 Main Street, Shelby, Montana 59474

Annual Review for the Year 1975 Volume 19

ANNUAL REVIEW — MONTANA 1975

More wells drilled for oil and gas were completed in Montana during 1975 than any of the previous five years. A total of 387 wells were completed as oil or gas producers, 122 more than in 1974.

The Montana Board of Oil and Gas Conservation recorded a total of 845 wells drilled, including 15 new gas field discoveries and six oil field discoveries. A total of 257 wildcats resulted in 21 discoveries for a success ratio of 8.2%; near the 9% success ratio of 1974. Infield programs featured the 1975 overall drilling. Of the 588 development wells drilled, 105 were completed as oil wells and 261 produced gas for a success ratio of 62%. This compares to a 52% success ratio for 1974. Development well completions also include four significant extensions to established fields and two field wells that encountered new pay zones.

Oil production for 1975 was down from the previous year's production. The production of oil decreased from 34,553,962 barrels in 1974 to 32,843,674 barrels. This decrease was mainly due to a normal production decline at Bell Creek Field in the Powder River Basin and Cut Bank Field in northern Montana. The Tyler sands of Central Montana, however, continue to show a substantial increase in oil production, where 303 producing wells had a total output of 3,954,024 barrels for 1975, up 619,265 barrels from 1974.

Natural gas production of 43,622,602 MCF for 1975 presents a 6,769,065 MCF decrease from 50,391,667 MCF shown for 1974. This is largely due to the duplicate inclusion of storage gas at Cedar Creek Field into the reported produced gas total for 1974. Tiger Ridge also had a decline of production, down 3,732,709 MCF from 1974.

Gas was produced from seven additional areas in 1975 that were not on stream in 1974; including Bears Den Field in Liberty County, Brown's Coulee and Coal Coulee in Hill County, North Clark's Fork and South Clark's Fork in Carbon County, Pumpkin Creek in Custer County, and Strawberry Creek in Toole County.

Most of the drilling during 1975 was again directed at shallow upper Cretaceous gas sands in north-central Montana predominantly in the Bowdoin Dome area of Phillips County and the Bearpaw Arch area of Blaine and Hill counties. Considerable interest was also demonstrated in the Kevin Sunburst Dome area in the northwestern part of the State. A total of 136 wells were drilled in the Bowdoin Dome area with one of the eleven wildcats drilled and 119 of the 125 development wells being completed as successful gas producers. A major program of 50 exploratory wells and 159 development wells in the Bearpaw Arch area resulted in four gas discoveries, one development oil well and 60 infield gas completions. The Kevin Sunburst Dome area drilling activity consisted of 20 wildcats and 46 development wells for a total of 66 wells drilled, including 4 gas discoveries, 12 oil and 19 gas development completions.

Drilling for added oil production from the Tyler sands along the Central Montana uplift continues to accelerate. A total of 78 wells were drilled, 23 exploratory and 45 development, resulting in three discoveries and twenty development producers.

The dominant interest in the shallow gas producing sands of northern Montana and oil bearing Tyler sands of Central Montana is expected to continue in 1976, with the possible increase in exploratory drilling for deeper reservoirs (madison, Devonian, Silurian and Red River formations) in the Williston Basin area of northeastern Montana.

A renewed interest is being shown in the overthrust area along the western portion of Montana due to recent major discoveries on the structure south of the State boundary. Exploratory research is underway to delineate drillable prospects. The trend, which is sparsely drilled, is known to contain the reservoir rock and entrapment for potential hydrocarbon accumulations of major proportions.

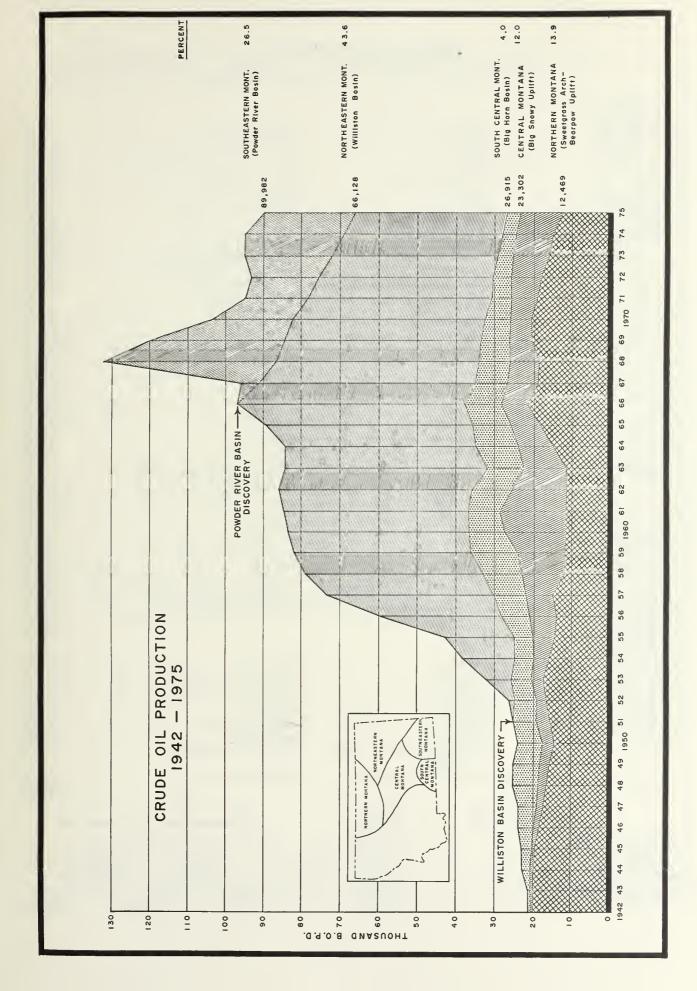
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FIVE YEAR SUMMARY

	1970	1971	1972	1973	1974	1975
Production, Northern Montana—Bbls.	7,680,831	7,292,476	6,646,908	5,948,826	5.464.319	4.551.324
South Central—Bbls.	2,329,187	2,028,304	1,742,749	1,515,088	1,432,528	1,318,779
Central—Bbls.	1,915,273	2,274,124	2,817,045	3,238,967	3,334,759	3,954,024
Williston Basin—Bbls.	18,110,147	17,042,703	16,361,771	15,735,703	14,939,292	14,312,685
Powder River Basin—Bbls	7,843,259	5,961.116	6,335,666	8,181,598	9,383,064	8,706,862
TOTAL	37,878,697	34,598,723	33,904,139	34,620,182	34,553,962	32,843,674
No of Producing Wells Northern Montana	1.806	1.768	1,856	1 708	1 802	2.067
South Central	36	96) (£	86	100
Central.	200	212	224	245	267	303
Williston Basin	743	748	902	200	712	734
Fowder River Basin	3/1	321	C97	248	733	721
TOTAL	3,212	3,145	3,134	2,993	3,100	3,435
Average Daily Production/Well-BOPD,						
Northern Montana	11.6	11.3	8.6	9.5	8.3	6.0
South Central	69.3	57.9	57.4	20.0	45.6	36.1
Central	26.2	29.4	34.4	36.2	34.2	35,8
Williston Basin	8.99	62.4	63.3	8.09	57.4	53.4
Powder River Basin	57.9	50.9	65.3	90.4	110.3	103.2
STATE AVG.	32.3	30.1	29.6	31.7	30.5	26.2
Development Wells Drilled. Oil Wells	09	49	62	46	ν.ς 000	105
Gas Wells	30	98	26	165	179	261
Dry Holes	63	34	87	100	212	222
TOTAL	153	119	263	311	449	288
Exploratory Wells Drilled, Oils Wells	12	က	7	9	7	9
Gas Wells	11	22	19	36	21	15
Dry Holes	272	323	435	366	265	236
TOTAL	295	348	461	408	293	257
TOTAL WELLS DRILLED	488	467	724	719	742	845
TOTAL FOOTAGE DRILLED	1,969,583	1,735,222	2,300,075	1,834,288	2,173,519	2,467,838
AVERAGE DEPTH OF ALL WELLS	4,396	3,716	3,177	2,551	2,929	2,921

SUMMARY OF DRILLING BY COUNTIES — 1975 STATE OF MONTANA

	\$	Wildcats		De	Development		Total	Footage	Average
County	Dry	Oil	Gas	Dry	Oil	Gas	Wells	Drilled	Depth
Beaverhead	-	0	0	0	0	0	1	13.909	13.909
Big Horn	2	0	0	1	က	1	12	35,987	2,999
Blaine	30	0	1	36	1	24	92	188,739	2,052
Carbon	9	0	0	2	0	4	15	80,206	5,347
Carter	7	0	0	0	1	0	∞	16,157	2,020
Chouteau	2	0	0	6	0	2	13	15,877	1,221
Custer	2	0	0	0	0	1	က	6,658	2,219
Daniels	က	0	0	0	0	0	က	24,277	8.092
Dawson	9	0	0	1	1	0	∞	71,245	8,906
Fallon	-	0	0	2	7	0	10	92,776	9,278
Fergus	11	0	0	10	0	9	27	57,378	2,125
Garfield	1	0	0	0	0	0	П	2,202	2,202
Glacier	က	0	0	2	12	က	25	73,736	2,949
Golden Valley	∞	0	П	0	0	0	6	27,538	3,060
Granite	2	0	0	0	0	0	2	2,534	1,267
Hill	16	0	က	62	0	36	117	186,227	1,592
Liberty	4	0	2	14	∞	24	52	134,481	2,586
McCone	4	П	0	7	က	0	10	66,264	6,624
Musselshell	14	1	0	11	6	0	35	128,369	3,668
Petroleum	10	0	0	0	П	0	11	34,290	3,117
Phillips	10	0	П	9	0	119	136	206,251	1,517
Pondera	2	0	2	9	7	6	26	48,381	1,861
Powder River		0	0	2	4	0	7	32,442	4,635
Richland	4	0	0	2	∞	0	14	167,908	11,993
Roosevelt	2		0	0	2	0	15	125,380	8,359
Rosebud	16 -	7	0	14	11	0	43	206,022	4,791
Sheridan	2	0	0		2	0	10	82,625	8,263
Stillwater	က	0	0	∞	0	13	24	45,368	1,890
Sweetgrass	2	0	_	0	0	0	9	23,265	3,878
Teton	10	0	0	က	2	0	20	49,081	2,454
Toole	16	0	4	15	12	19	99	137,993	2,091
Valley	10	0	0	4	0	0	14	47,194	3,371
Wibaux		-	0		0	0	က	20,440	6,813
Yellowstone	9	0	0	0	1	0	7	16,638	2,377
TOTALS	236	9	15	222	195	261	845	2,467,838	2,921



GAS PRODUCTION DATA — 1975

Field	County	Producing Formations	1974 Production M.C.F.
NATURAL GAS:			
Bears Den	Liberty	Sawtooth & Sunburst	1,825
		waterLakota & Morrison	
		Eagle	
		Sunburst, Swift & Blackleaf	
Bowdoin	Phillips & Valley	Bowdoin & Phillips	4,733,630
		Eagle	
Brown's Coulee	Hill	Judith River & Eagle	49,527
		Sawtooth	
		Judith River & Eagle	
		Eagle	
		Cut Bank & Madison	
		Eagle, Frontier & Greybull	
Diy Cicek Fthridae	Toolo	Bow Island & Swift	
Flat Couloo	I iborty	Kbl, Ksb, Jsw, Kbi	106,132
		Bow Island	
		Frontier	
		Bow Island & Sawtooth	, ,
		Sunburst & Sun River	
		Sun River	
		Kf, Ke, Kve, Ktc,	
		Shannon	
		Blackleaf	
		Frontier	
		Madison	
		Lakota	
		Judith River	
		Shannon	454,080
Rapelje	Stillwater	Judith River, Claggett, Eagle	
		& Virgelle	
Sherard		Eagle	
South Clark's Fork	Carbon	Greybull	5,884
South Devon	Toole	Bow Island	144,702
Strawberry Creek	Toole	Bow Island	50,492
Tiger Ridge	Blaine & Hill	Judith River & Eagle	15,719,832
Timber Creek	Toole	Sunburst	37,380
Trail Creek	Liberty & Toole	Sunburst	124,335
Utopia	Liberty	Ellis, Sawtooth, & Madison	346,745
		Sawtooth & Madison	
		Bow Island, Kootenai, & Swift	
SUBTOTAL	•		40,609,494
Associated Gas:			40,000,40
	Danielon	Muddy	440.001
		Muddy	
		Red River	
Cabin Creek	Fallon	Interlake & Red River	
		Tensleep	
Fairview	Richland	Red River	393,887
Fred & George Creek	Toole	Sunburst & Swift	16,522
		Red River	393,887
Pine	Dawson, Prairie, Fal & Wibaux	lon Interlake & Red River	538,272
Richland Area		tMm, Dw, Si, Orr,	618,600
TOTAL			43,622,600
IOIAL	Year 197:		10,022,000
REFINING -	- 1975 Total Bbls	Defining Fire Voca Comm	onicen
Big West Oil Company	1,209,324	Refining Five Year Comp	arison
Continental Oil Company	16,471,546		
Farmers Union Central Exchange,			2
Exxon Company	15,100,002	44.996.860 48.464	721
Phillips Petroleum Company	2,157,556		
Spruce Oil Company	690,142		1975
Westco Refining Company			
	48,098,535	50,967,206 48,052,776	48,098,535

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Fields	BIG WEST OIL CO.	CONTINENTAL OIL CO.	COMPANY	FARMERS	PHILLIPS PETR.CO.	TESORO PETR. CO.	WESTCO REF. CO.	TOTAL
Big Wall Cat Creek		70,441 29,465		100,537	, , , , , , , , , , , , , , , , , , ,		000	70,441
Cut Bank Devil's Basin	205,574	1,207	81		1,256,401		1,168,132	2,630,107
Elk Basin Flat Coulee		489,977	369,655				123,777	1,216,963 123,777
Fred & George Creek	408,564							408,564
Ivannoe Keg Coulee		34,125 90,922	21,827	21,497				34,125 134,246
Kelley Kevin Sunburst	563.851		44,081					44,081
Lodge Grass Mason Lake		7,401						7,401
Melstone				16,517	5 6			16,517
Pondera Ragged Point Bosebud		200,935			247,670			247,670
Richey Southwest		E0017ET				18,120		142,534
Snyder Sumatra & Stensyad		6,082	428.258	920 879				6,082
Tule Creek & Others					900	472,479		472,479
whilash Winnett Junction				49,117	220,425			220,425 49,117
Wolf Springs Volt			15,323			196,025		15,323 196,025
Total Montana Oil Canadian Oil Imported Wyoming Oil Imported	1,177,989	1,702,825 8,960,007 5,808,714	879,225 5,605,841 8,614,936	1,465,878 4,339,467 5,372,711	1,724,496 433,060	686,624 3,518	1,291,909	8,928,946 19,373,228 19,796,361
Total Montana, Canadian & Wyoming Oil	1,209,324	16,471,546	15,100,002	11,178,056	2,157,556	690,142	1,291,909	48,098,535
	AV	AVERAGE BARRELS PER DAY	PER DAY		PERCEN	PERCENTAGE OF CRUDE OIL REFINED	E OIL REFINED	
	اءا	Canada Wy		Total	Montana	Canada	Wyo	Wyoming
Year: 1974 Year: 1975	25,537 24,463	44,487 6. 53,077 54	61,627 131, 54,237 131,	131,651 131,777	19.40% 18.56%	35.79% 40.28%	46.8	46.81% 41.16%

Field, Formation Ash Creek, Shannon Bell Creek, Unit "A", Muddy Bell Creek, Unit "B", Muddy Bell Creek, Rench Creek, Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "G", Muddy Bell Creek, Unit "G", Muddy Bell Creek, Unit "B", Muddy Bell Creek, Unit "E", Muddy Bell Creek, Unit "E", Muddy Bell Creek, Unit "E", Muddy	Operator McDermott Gary Gary Gary Gary Gary	Type of Project Waterflood Waterflood	Injection Pattern Peripheral Peripheral	Date Injections Commenced 10-15-64 7- 1-70	Cumulative injections 1000's Bbis. or MCF 1,015 61,688	Dec. 1974 Avg. Dally Inj. Rate Bbls. or MCF	No. of Injection Wells	n Source of Injection Media and Remarks Parkman
Ash Creek, Shannon Bell Creek, Unit "A", Muddy Bell Creek, Unit "B", Muddy Bell Creek, Ranch Creek, Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Bell Creek, Unit "E", Muddy Big Wall, Tyler B	McDermott Gary Gary Gary	Waterflood Waterflood	Peripheral Peripheral	10-15-64	1,015	Bbls, or MCF	Wells	Media and Remarks
Bell Creek, Unit "A", Muddy Bell Creek, Unit "B", Muddy Bell Creek, Ranch Creek, Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Bell Creek, Unit "E", Muddy Big Wall, Tyler B	Gary Gary Gary	Waterflood					2	Parkman
Bell Creek, Unit "B", Muddy Bell Creek, Ranch Creek, Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Bell Creek, Unit "E", Muddy Big Wall, Tyler B	Gary Gary		Peripheral	7- 1-70	61.688			
Bell Creek, Ranch Creek, Muddy Bell Creek, Unit "C", Muddy Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Big Wall, Tyler B	Gary	Waterflood				33,085	27	Medison
Bell Creek, Unit "C", Muddy Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Big Well, Tyler B			Peripheral	11- 1-70	17,744	8,660	13	Madison
Bell Creek, Unit "O", Muddy Bell Creek, Unit "E", Muddy Big Well, Tyler B	Gary	Waterflood	Peripheral	7- 1-71	21,561	8,870	13	Madison
Bell Creek, Unit "E", Muddy Big Wall, Tyler B		Waterflood	Peripheral	12- 1-71	8,272	6,970	6	Medison
Big Wall, Tyler B	Gary	Waterflood	Peripheral	8-72	11,083	6,727	14	Medison
	Gary	Waterflood	Peripheral	8-72	8,017	7,488	16	Medison
Border, New, Cut Bank	Texaco, Inc.	Waterflood	Peripheral	8-20-66	16,325	5,496	2	Produced, Amsden & Tyler
	BG&O Co.	Waterflood	Random	6- 1-73	165	233	. !	Medison
Border,Old, Cut Bank	BG&O Co,	Waterflood	Random	6- 1-73	484	478	4	Medison
Bowes , Sawtooth	Texaco, Inc.	Waterflood	Random	5-23-61	3,630	605	4	Madison
Cabin Creek, Siluro-Ord.	She11	Waterflood	Semi-Peripheral	6-12-59	145,308	37,110	31	Produced & Fox Hills
Cat Creek, East Oome, Swift	Moss	Waterflood	SemI-Peripheral	7-30-70	276	306	4	Third Cat Creek
Cat Creek, 1st & 2nd CC (Unit 1)	Farmers Union	Waterflood	Semi-Peripheral	10-10-62	10,325	1,852	7	Third Cat Creek
Cat Creek, 1st & 2nd CC (Unit 2)	Farmers Union	Waterflood	Semi-Peripheral	12- 1-59	17,369	1,010	6	Third Cat Creek
Cat Creek, Mosby, Swift	Farmers Union	Waterflood	Random	7-67	3,383	1,077	5	Third Cat Creek
Cat Creek, Mosby, Amsden	Farmers Union	Waterflood	Random	6- 1-71	41	10	1	Third Cat Creek
Cut Bank, Marina, Cut Bank	BGsO Co.	Waterflood	5-Spot	6-72	1,300	1,139	8	Madison
Cut Bank, Tweedy, Cut Bank	BGSO Co.	Waterflood	5-Spot	6-72	713	239	3	Had I son
Cut Bank NE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	6- 2-63	12,939	987	9	Madison
Cut Bank NW, Cut Bank	Phillips	Waterflood	5-Spot	1-30-62	14,373	1,478	14	Madison
Cut Bank SC, Cut Bank	Union	Waterflood	5-Spot	5-63	29,763	6,053	49	Madison
Cut Bank SE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	4-62	49,153	6,685	53	Hadison
Cut Bank SW, Cut Bank	Phillips	Waterflood	5-Spot	9-62	69,703	17,603	97	Madison
Cut Bank, Lander A	Phillips	Waterflood	Random	4-65	1,406	183	2	Madison
Cut Bank, Lander	Texaco, Inc.	Waterflood	Random	7-64	6,840	1,400	7	Eagle
Cut Bank, McGuiness, Moulton	Union	Waterflood	Random	12-62	3,664	1,030	1	Madison
Cut Bank, Cut Bank	Tesoro	Waterflood	5-Spot	9- 1-71	2,576	2.040	17	Hadison
Cut Bank, Two Medicine, Cut Bank	Miami	Waterflood	Random	12-67	38,769	6,326	77	Madison
Cut Bank, West Wilcox, Moulton	Oecalta	Waterflood	Random	2-71	14,968	2,409	10	Madison
Cut Bank, Moulton, Moulton	Unlon	Waterflood	Random	11-69	11,164	7,611	- 11	Water Inj. Into Madison
		Gas Injection	Random	5-15-71	Shut-In			Gas Inj. Into Moulton
Oarling, State, Moulton	BGEO Co.	Waterflood	Random	2-67	2,365	420	1	Madison
Oarling, NE Unit, Moulton	Ralph Fair	Waterflood	Random	2-68	4,399	1,280	4	Produced Water
Oarling, South Swenson, Moulton	BGEO Co.	Waterflood	Random	2-67	7,166	734	2	Madison
Dwyer, Ratcliffe	Phillips	Waterflood	Peripheral	10-68	1,356	204	5	Madison
Elk Basin, Embar-Tensleep	Amoco	Gas Injection	Random	12-72	2,258 M	34 MCF	1	Produced Gas
Elk Basin, Frontier	Атосо	Waterflood	Random	1926	2,251	992	2	Medison
Elk Basin, Unit 2, Tensleep	Amoco	Waterflood	Random	1949	2,171	1,100	1	Produced Water
Elk Basin, Madison	Amoco	Waterflood	Peripheral	1962	55,207	14,278	8	Produced Water
Elk Basin NW, Tensleep	Atlantic-Richfield	Waterflood	Sem1-Per1pheral	5-67	3,622	1,942	2	Hadison
Fairview, NW Unit, Red River	Superior	Gas Injection	Crestal	10-25-67	2,573 M	689 MCF	1	Purchased Gas
Flat Coulee, Swift	Cardinal	Waterflood	Peripheral	2- 1-72	2,846	1,986	15	Eagle
Flat Lake, Ratcliffe	Chevron	Waterflood	Rendom	6- 1-71	10,834	7,750	11	Produced Water
Frannie, Tensleep	Continental	Waterflood	Random	9-70	1,807	848	1	Produced Water
Fred & George, Sumburst	Fulton	Waterflood	Random	7-70	12,468	8,102	2	Madison & Eagle
Gas City, Red River	Shell	Waterflood	Sem1-Peripheral	10-31-69	7,304	4,486	6	Hission Canyon
Goose Lake, Ratcliffe	Cotton Petroleum	Waterflood	Semi-Peripheral	1-73	3,771	4,962	5	Produced Water
Jim Coulee, Tyler B	McAlester Fuel	Waterflood	Sem1-PerIpheral	6- 1-72	3,569	4,212	5	Third Cat Creek
Keg Coulee, NW Unit, Tyler B	Ada 011	Waterflood	Semi-Paripharal	8-31-66	4,903	590	1	Madison
Keg Coulee, East, Tyler	Cont Inental	Waterflood	Semi-Peripheral	12-24-69	3,364	257	3	Third Cat Creek
Keg Coulee, South, Tyler	BGEO Co.	Waterflood	Semi-Peripharal	1- 1-70	1,771	1,306	2	Medison
Kelley, Tyler	McAlester Fuel	Waterflood	Rendom	7-69	1,585	820	3	Third Cat Creek
Kevin-Sunburst, Madison	Lon Crumlay	Waterflood	R an dom	9-63	0	0	2	Medison
Kevin-Sunburst, Madison	BGEO Co.	Waterflood	Random	8-64	5,538	1,447	6	Madison
Kevin-Sunburst, Medison	Texaco, Inc.	Waterflood	Semi-Peripheral	8-64	8,379	1,339	10	Madison
Little Beaver, Red River	She I I	Waterflood	Semi-Peripheral	8- 7-66	22,905	6,251	13	Madison
Little Beaver East, Red River	Sha11	Waterflood	Sem1-Par1pheral	4-65	9,449	1,829	6	Hadison
Lookout Butte, Red River	She11	Waterflood	Sem1-PerIpheral	4-67	19,048	6,943	12	Minnelusa
Lookout Butte, Madison	Shell	Waterflood	Semi-Paripheral	2-69	1,806	933	1	Hinnelusa
Honarch, Sllurian	Shell	Waterflood	Random	12- 1-73	104	0	3	\$11uro-Ord.
Pennel, Red River	She11	Waterflood	Random	6-28-69	43,530	26,196	45	Dakota and Produced
Pine, South, Red River	Shell	Waterflood	Sem1-Peripheral	3-59	128,531	28,920	36	Fox Nills and Produced
Pine, North, Red River	Shell	Waterflood	Semi-Peripheral	3-68	13,603	4,998	11	Lodgepole
Prichard Creek, Sunburst	Fulton Producing	Waterflood	Random	4-73	230	0,950	0	Eagla
Prichard Creek, Sumburst Ragged Point, Tyler	BGEO Co.	Waterflood	Sem1-PerIpheral	12- 3-66	5,859	1,052	4	Third Cat Creek
			Random	8-61	4.358 M	200	2	Gas Injection
Reagan, Madison	Union	Gas Injection		6-65			6	Gas Injection Madison
Red Creek, Cut Bank	Exxon	Waterflood	5-Spot		9,738	2,551		
Richey SW, Interlake	Atlantic-Richfield	Waterflood	Random	12-65	2,174	203	1	Fox NIIIs
Stensvad, Tyler	Ada 011	Waterflood	Semi-Peripheral	2-63	26,100	4,244	7	Madison
Sumatra, West, Tyler	Continental	Waterflood	Semi-Paripheral	10-68	12,879	5,641	9	Madison
Sumatra, Central, Tyler	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	45,223	26,973	18	Madison
Sumatra, NE, Tyler	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	3,230	1,128	4	Madison
Sumatra, SE, Tylar	BG&O Co.	Waterflood	Semi-Peripheral	12- 1-69	6,907	3,479	7	Hadison
Sumatra, Grebe, Tyler	Farmers Union	Waterflood	Random	6-16-75	14	86	1	Third Cat Crack
Willow Creek, North, Tyler B	Resources Investment	Waterflood	Random	6- 1-72	120	159	1	Produced

OIL AND GAS DISCOVERIES IN 1975

County	Operator-Well Name and Location	Field	Total Oepth	Initial Potential Oll,B/O Gas,MCF	Producing Formation	Oate Completed
Blaine	Industrial Energy, Kuhr 34-24, SW SE 24-29N-21E	Unnamed	1,559	Shut~in	Eagle	5-28-75
Golden Valley	West Gas, 7-T Land & Livestock 2-7, SW NW NE 27-5N-17E	Unnamed	1,924	Testing	Eagle	1- 1-75
нін	Oil Resources, Larson 19-4, SE NW NW 19-35N-13E	Unnamed	3,925	53	Greenhorn	3- 3-75
	Pengo Petroleum, USA 1-11, SW NE SW 11-37N-12E	Unnamed	1,280	Shut-in	Eagle	1- 3-75
	Wainoco, Clark 1-25, S½ SW4 25-36N-15E	Unnamed	1,540	Shut-in	Eagle	11-15-75
Liberty	Jerry Branch, Oswood 8-33, SW SE NE 33-36N-4E	Unnamed	1,620	Shut-In	Sunburst	10-24-75
	Apache, Spicher 14-1, NW SE 14-31N-7E	Unnamed	3,329	Shut-in	Bow Island	4-29-75
McCone	Kewanee, BN 'A' OJI 1, NW NE 11~22N-47E	Unnamed	6,438	285	Kibbey	12- 8-75
Musselshell	Koch Exploration, Hochmuth 1, $S^{\frac{1}{2}}_{2}$ $SW^{\frac{1}{4}}_{4}$ 1-9N-24E	Unnamed	5,880	30	Amsden	12-20-75
Phillips	Midlands Gas, Federal 1770-1, NW SE NW 17-37N-30E	Unnamed	1,900	82	Phillips	8- 5-75
Pondera	Balcron, State 1-A, $N_2^{\frac{1}{2}}$ $S_2^{\frac{1}{2}}$ $SE_4^{\frac{1}{4}}$ 16 -29N-2W	Unnamed	1,217	Shut-in	Bow Island	5-22-75
	Brownlie, Larson 1, C SW SW 34-28N-6W	Unname d	3,265	125	Madison	
Roosevelt	Pennzoil, Longee 1, NE NE 32-31N-49E	Unname d	9,485	28	Charles	8- 8-75
Rosebud	Petro-Lewis, State 12-31, Lot 6, 31-12N-33E	Unnamed	5.759	407	Tyler	10-26-75
	Oyco Petroleum, Schock 1, Lot 21, 4-11N-32E	Unnamed	5.705	720	Tyler	10-30-75
Sweetgrass	West Gas, Cremer 5-8, SW NW 8-3N-18E	Unnamed	2,265	100	Judith River	
roole	Croft Petroleum, State 1, NE SW SW 9-34N-2E	Unnamed	1,937	Shut-in	Bow Island	9-20-75
	Marquis Petroleum, McCarter 14-2, NW NE 14-32N-1W	Unnamed	1,375	Shut-in	Bow Island	10- 3-75
	Croft Petroleum, State 1, SW NE 16-34N-2E	Unnamed	1,401	Shut-in	0akot a	
	True Oil, Wallewein 24-6, SE SW 6-35N-1E	Unnamed	2,255	Shut - in	Sunburst	12-31-75
√ibau×	J.P.C. Corp., BN 34-27, SW SE 27-11N-58E	Unnamed	9,590	120	Red River	4-23-75
	SIGNIFICANT EXTENSI	DNS 1/ AND NEW PAY ZON	NES 2/ IN 1975			
Blaine	Montana Power, Federal 16-7-26-21, NW SE SE 7-26N-21E	Unnamed 1/	2,047	Shut-In	Judith River	11-22-75
Fallon	Juniper Petroleum, BN 32-25, C SW NE 25-10N-58E	Cupton 1/	9,505	15	Red River	4-17-75
iberty	Fulton Producing, Orr 41-21, SE NE NE 21-37N-4E	Whitlash 2/	2,226	Shut-In	Madison	
lusselshell	McAlester Fuel, BN 3-16, SE SE 3-10N-27E	Little Wall 1/	3,880	57	Tyler B	4-19-75
Phillips	Midlands Gas, Fee 2970-1, NW SE NW 29-37N-30E	Unnamed 1/	1,826	258	Bowdoin	12- 5-75
Richland	Pennzoil Company, Tveit 3, SE NW 19-25N-58E	Sioux Pass 2/	12,799	180	Mission Canyon	3-22-75

Field, Formation, Age		No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
ANTELOPE Swift (U. Jur.)		ო	Structural	Water Drive	(Listed as part of Cat Creek Field.)	None
ARCH APEX Bow Island (L. Cret.) Gas Swift (Jurassic) Gas	(Shut-in)	დ ო	Strat. Strat.	Volumetric Volumetric	330' from legal subdivision; 2400' from any other drilling or producible gas well producing from the same reservoir; 75' topographic tolerance. (Order 4-60.) (Sometimes called Colorado Blackleaf pool.) (Swift) Statewide.	None
ASH CREEK Shannon (U. Cret.)		ю	Structural	Partial Water Drive and Depletion	Spacing waived within utilized portion of field except no well may be drilled closer than 660' from unit boundary. (Order 4-65.)	Waterflood started October, 1964. (Orders 22-64, 15-66.)
BAINVILLE Red River (Ord.)		-	Structural- Strat.	Depletion- Water Drive	State-wide.	Produced water disposed into Red River formation. (Order 7-A- 75).
BANNATYNE Swift (U. Jur.) Sun River (U. Miss.)	(Shut-in)	ო -	Structural	Comb. Water Drive and Volumetric	Center of 10-acre tracts, 50' topographic tolerance. Commingling permitted. (Order 20-58.)	Pilot waterflood of Swift suspended in 1963.
BEARS DEN Sunburst (L. Cret.) Gas Swift (U. Jur.) Oil Sawtooth (Jur.) Gas	(Shut-in) (Shut-in)	e e −	Structural	Depletion and Gas Cap Drive	State-wide.	None
BELL CREEK Muddy (L. Cret.) Oil & Gas Gas		188	Strat.	Depletion	Originally 40-acre spacing units with location 660' from unit boundary with 150' tolerance for topographic reasons only. (Order 37-67, 39-67, 50-67, 1-69, 17-70.) Field now unitized.	Six areas unitized (Unit "A", "B", Ranch Creek, "C", "D", and "E".) Floods use Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 36-71.)
BELL CREEK SOUTHEAST Muddy (L. Cret.) Gas	F	4	Strat.	Depletion	160-acre spacing units, wells 660' from spacing boundary. (Order 31-72.)	None
BENRUD Nisku (Dev.)	(Shut-in)		Structural	Water Drive	160-acre spacing units with permitted location within a 1320' square in center of quarter section. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62.)

Field, Formation, Age		No. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BENRUD, EAST Nisku (Dev.)		е п	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62, 32-66.)
BENRUD, NORTHEAST Nisku (Dev.)		-	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 32-66.)
BERTHELOTE Sunburst (L. Cret.)	(Shut-in)	-	Strat.	Depletion	40-acre spacing units with well no closer than 330' from lease or property line and no closer than 660' between wells. (Order 18-66.)	None
BIG COULEE 3rd Cat Creek (L. Cret.) Gas Morrison (U. Jur.) Gas		℃ ←	Structural Structural	Water Drive Water Drive	State-wide.	None
BIG MUDDY CREEK Interlake (Sil.) Red River (Ord.)		– ω	Structural	Water Drive	One well per 320 acre spacing unit with well no closer than 660 feet from boundary of four east-west units. (Order 4- 75.)	None
BIG WALL Amsden (Penn.) Tyler (Penn.)	(Shut-in) (Shut-in)	ε τ	Structural Struct Strat.	Water Drive Depletion	Spaced by old state-wide spacing; 330' from lease or property line, 990' between wells in same reservoir. (Order 12-54.)	Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August, 1966. (Order 22-66.)
BLACK COULEE Eagle (U. Cret.)		4	Structural- Strat.	Water Drive	One well per 320-acre spacing unit, two adjacent quarter sections, direction operator's option. Wells to be at least 990' from unit boundary. (Order 6-73.)	None
BLACKFOOT Cut Bank (L. Cret.) Sun River (Miss.)	(Shut-in)	4 L	Strat. Structural	Depletion Water Drive	One well only per 40-acre spacing unit, 300' tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57.)	None
BLACK JACK Sunburst (L. Cret.) Gas Swift (U. Jur.) Gas & Oil Blackleaf (U. Cret.) Gas		10 2 1	Strat.	Depletion	One gas well per 160-acres, no closer than 660' from boundary of each unit. (Order 3-69.) State-wide spacing. Order 3-69 amended to include Blackleaf in spacing and field rules for gas. (Order 4-74.) Blackleaf gas pooled (Order 3-75).	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BORDER Cut Bank (L. Cret.) Oil & Gas	ω	Strat.	Depletion	Oil: Unitized into New and Old Border fields. Unitized 6-1-73. (Orders 8-73, 9-73.) Gas: 330' from boundary of legal subdivision. 2,400' between wells in same formation on same lease. 75' topographic tolerance. (Order 7-54.)	Waterflood approved. (Orders 8-73, 9-73.)
BOWDOIN Bowdoin & Phillips sands in Colorado Shale (U. Cret.) Gas (Shut-in) *Gas wells outside boundary.	347 *69 69	Structural	Volumetric	One well per quarter section not less than 1000' from lease boundary or less than 2000' from any gas well in same horizon. (Order 29-55.) Unitized 1958. Delineated: (Order 3-72.)	None
BOWES Eagle (U. Cret.) Gas	56	Structrual	Volumetric	660' from boundary of legal subdivision, 1320' from other wells in same formation. 75' topographic tolerance. (Order 23-54.) Order 23-54 amended by establishing 160-acre Eagle spacing units in Sec. 5, 6, 7, 8, 17, 18-31N-19E. (Order 44-75).	None
Sawtooth (M. Jur.) Oil (Shut-in)	51 25	Structural	Partial Water Drive	330' from lease or property line, 990' between wells in the same formation. (Order 13-54.)	Pilot waterflood initiated in 1961 and expanded to fieldwide waterflood in 1965. (Order 5-61.) Water from Madison.
BRADLEY Sun River (Miss.) (Shut-in)		Structural	Water Drive	State-wide.	None
BRADY Sunburst (L. Cret.) (Shut-in)	-	Strat.	Depletion Partial Water Drive	10-acre spacing units with 75' topographic tolerance from center of spacing unit. (Order 34-62, 55-62.)	None
BRORSON Mission Canyon (Miss.) Oil & Gas Red River (Ord.) Oil & Gas	4 დ	Structural	Volumetric, Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary (Mission Canyon and Red River). (Order 5-69.) Gas to Brorson Field plant.	None
BRORSON, SOUTH Red River (Ord.) Oil & Gas	ю	Structural	Volumetric, Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary. (Order 26-68.) Gas to Brorson Field plant.	None
BROWN'S COULEE Judith River (U. Cret.) Gas Eagle (U. Cret.) Gas	ю	Structural	Volumetric	One well per 160-acre unit with well location no closer than 660' from unit boundary. Commingling permitted with administrative approval. (Order 7-74.)	None

	Prod.	Type	Probable Drive	Spacing Regulations, Field Rules, and	Secondary Recovery or
Field, Formation, Age	Wells	Trap	Mechanism	Remarks	Water Disposal
BRUSH LAKE Red River (Ord.) Oil & Gas (Shut-in)	5 2	Structrual- Strat.	Depletion Water Drive	320-acre spacing with initial nine spacing units described in (Order 15-71 corrected).	None
BULLWACKER Judith River (U. Cret.) Gas Eagle-Virgelle (U. Cret.) Gas	28	Structural	Volumetric	One well per 320-acre spacing unit with well location no closer than 660' from unit boundary & 990' from field boundary. (Order 26-74.)	None
BURNS CREEK Red River (Ord.)	-	Structural	Depletion Water Drive	State-wide.	None
CABIN CREEK Mission Canyon (Miss.) Oil & Gas (Shut-in)	4 4	Structural	Water Drive Depletion	Spacing waived and General Rules No. 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended	rflood of Siluro-Ordo voir has been expan
Interlake-Red River Oil & Gas (Sil.) (Ord.)	69	Structural	Water Drive, Depletion	until present Unit Agreement becomes inoperative. (Urder 36-62.) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant.	rull scale peripheral flood. (Orders 60-62, 30-63.)
CANADIAN COULEE, NORTH Sawtooth (M. Jur.)	7	Structural- Strat.	Volumetric	640-acre spacing unit. Location to be no closer than 1650' to section line. (Order 15-74.)	None
CANAL Red River (Ord.)	-	Structural	Water Drive Depletion	320-acre spacing units consisting of East half and West half of governmental section. (Order 34-70.)	None
CAT CREEK Kootenai (L. Cret.) (3 sands) Morrison (U. Jur.)	32 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Structural- Strat. Structural-	Water Drive Water Drive	220' from lease or property line, 440' from every other well in same formation. (Order 17-55.) Five separate producing areas, East, Antelope, Mosby, West and Landheim Domes.	Three Kootenai, two Ellis, and one Amsden waterfloods in progress. (Orders 17-56, 18-59.
Ellis (U. Jur.) Amsden (Penn.)	6 7 1	Strat. Structural Structural- Strat.	Depletion- Water Drive Water Drive	State-wide.	13-62, 8-68, 38-70, 11-71.) Water from Third Cat Creek sand. Waterflood modified. (Order 29- 74.)
CEDAR CREEK Judith River (U. Cret.) Gas	179	Structural	Volumetric	1200' from legal subdivision line, 2400' from every other	None
Eagle (U. Cret.) Gas	09	Structural	Volumetric	well in same formation. (Order 33-54.) 320-acre spacing units. Wells in center of NW¼ and SE¼ of each section with 200′ topographic tolerance. (Order 1-61.)	None

	Field, Formation, Age		No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
Structural- Depletion with 75' topographic tolerance. (Order 17-54.) Strat. Structural- Depletion- 160-acre quarter section spacing with location no closer than 660' from spacing unit boundary. (Order 23-75). Structural- Depletion- 160-acre spacing. Location no closer than 330' from quarter section line or 1320' from any other well. Strat. Depletion 10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-6.2, 31-6.3). Structural- Water Drive 80-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-6.2, 31-6.3). Structural- Water Drive 80-acre spacing units. direction at option of operator but wells to be spacing units. direction at option of operator but wells to be spacing units of at center with 150' topographic tolerance. (Order 35-74.) Structural- Depletion- State-wide in part. Unitized as to Section 32. SWV of Section 5. Strat. Water Drive (Order 29-70.) Structural- Water Drive (Order 29-70.) Structural- Water Drive (Order 29-70.) Structural- Water Drive (Order 29-70.) Strat. Water Drive (Noternal formation includes Moulton. Surburst, and Cut Bank Sands.) Oil: 330' from legal subdivision Inc. 650' between wells in same formation. Spot of between wells in same formation. Spot of between wells in same formation. 20' topographic tolerance. (Order 10-54.) Section. 35' 170' and 1		(Abandoned)	-	Structural	Water Drive		ne
Structural Structural Depletion 160-acre quarter section spacing with location no closer than Strat. Water Drive section line or 1320' from any other well. Structural Water Drive State-wide. Structural Water Drive 80-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive 80-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive 40-acre spacing units consisting of quarter-section. (Order 11-69.) Structural Water Drive 40-acre spacing units consisting of quarter-section. (Order 11-69.) Structural Water Drive 40-acre spacing units consisting of quarter-section. (Order 11-69.) Structural Water Drive 40-acre spacing units consisting of quarter-section. (Order 11-69.) Structural Water Drive 40-acre spacing units consisting of quarter-section. (Order 11-69.) Structural Water Drive 650-acre quarter section 3, Ni/WWV of Section 3, Ni/WWV of Section 3, Ni/WWV of Section 3, Ni/WWV of Section 4, and Ni/WEV of Section 5. (Order 29-70.) Water Drive 650' from spacing units boundary. (Order 10-54.) Gas: 390' from legal subdivision line. 650' Bank sands.) Oil: 330' from legal subdivision line. 650' Bank sands.) Oil: 330' from legal subdivision line. 650' Bank sands.) Oil: 330' from legal subdivision line. 650' Bank sands.) Oil: 330' from legal subdivision line. 650' Determent of the general order 10-54.) Gas: 330' from legal subdivision. 200' order 10-54.) Section 3, Oil-acre Milk 8, SW, Off-are 10-54.) Apple 10-54.) Oil-acre 10-54.	CLARK'S FORK Frontier (U. Cret.)		-	Structural- Strat.	Depletion	ween wells	ou.
Structural- Depletion- State-wide. Structural- Volumetric State-wide. Structural- Volumetric State-wide. Structural Water Drive B0-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive B0-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive B0-acre spacing units. Wells of each quarter section. (Order 11-69.) Structural Water Drive A0-acre spacing units consisting of quarter section. (Order 11-69.) Strat. Depletion- State-wide in part. Unitized as to SE's of Section 32. SW's of Section 33. N/SMW's of Section 4, and N/SME's of Section 5. (Order 29-70.) Strat. Depletion- State-wide in part. Unitized as to SE's of Section 5. Section 5. Strat. Order 29-70.) Strat. Depletion (Kootenal formation includes Moulton, Sunburst, and Cut Bank sands.) Oli: 30' from legal subdivision 20' order 10-54.) Gas: 30' from legal subdivision. 240' Bank sands between wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 240' Detween wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 240' Detween wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 240' Detween wells in same formation. 25' Order 30' order 30' order 40' order 4	CLARK'S FORK, NOR Lakota (L. Cret.) Gas	E	2	Structural. Strat.	Volumetric		e
Strat. Depletion 10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Strat. Depletion 10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive 80-acre spacing units. direction at option of operator but wells to be in SWV4 and NE¼ of each quarter section. (Order 11-69.) Structural Water Drive A0-acre spacing units consisting of quarter-quarter section. (Order 11-69.) Structural Depletion State-wide in part. Unitized as to SE¼ of Section 32. SWV¼ of Section 5. (Order 35-74.) Strat. Water Drive 160-acre quarter section spacing units. Location no closer than 660' from spacing units boundary. (Order 4-72.) R Gas 28 Strat. Depletion (Kootenal formation includes Moulton. Sunburst, and Cut Bank sands.) Oli : 30' from legal subdivision in the 650' derveen wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 240' cheveen wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 240' cheveen wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 30' from legal subdivision. 20' Order 10-54.) Gas: 30' from legal subdivision. 25' of Townships Strat. Surface 10' order 10-54.) Gas: 30' from legal subdivision. 26' from 10-54.) Gas: 30' from legal subdivision. 26' from 10-54.) Gas: 30' fro	CLARK'S FORK, SOUT Greybull (L. Cret.) Oil &		-	Structural- Strat.	Depletion- Water Drive		ē
(Shut-in) 1 Strat. Depletion 10-acre spacing units. Wells in center of each unit with 75′ topographic tolerance. (Orders 34-62, 31-63.) Structural Water Drive Wells to be in SW/4 and NE/4 of each quarter section. (Order 11-69.) Structural Water Drive Wells to be in SW/4 and NE/4 of each quarter section. (Order 11-69.) Structural Depletion Strate-wide in part. Unitized as to SE/4 of Section 32. SW/4 of Section 5. Strat. Water Drive GOTder 29-70.) Strat. Depletion Gotton and ormation includes Moulton, Surburst, and Cut Han 660' from spacing units bedrowing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.) Strat. Depletion Bank sands.) Oil: 330' from legal subdivision in line. 650' between wells in same formation. 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 38 Gas Strat. Water Drive Bank sands.) Oil: 330' from legal subdivision. 2400' between wells in same formation. 75' groupgraphic tolerance. (Order 10-54.) Gas: 30' and 32 of Township 35' NOT Notes 10-52.)	COAL COULEE Eagle (U. Cret.) Gas		ო	Structural- Strat.	Volumetric		Je
EAST 6 Structural Water Drive wells to be in SWV4 and NEV4 of each quarter section. (Order 11-69.) 1 Structural Water Drive wells to be at center with 150' topographic tolerance. (Order 35-74.) 1 Structural Water Drive Section 33.NV2NWV4 of Section 4. and NV2NEV4 of Section 5. (Order 29-70.) 2 Strat. Depletion Strat. Depletion Bank sands.) Oil: 330' from legal subdivision line. 650' between wells in same formation. S-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 2400' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 240' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 240' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 240' between wells in same formation. T5' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 240' between wells in same formation. 25' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 240' between wells in same formation. 25' Order 10-54.) Gas: 350' from legal subdivision. 240' between wells in same formation. 25' Order 10-54' O	CONRAD, SOUTH Dakota (L. Cret.)	(Shut-in)	-	Strat.	Depletion	unit with 75′	ē
6 Structural Water Drive 40-acre spacing units consisting of quarter-quarter section with permitted well to be at center with 150' topographic tolerance. (Order 35-74.) 1 Structural- Depletion- State-wide in part. Unitized as to SE's of Section 32. SW's of Section 5. Order 29-70.) 10 Structural- Water Drive 160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.) 11 Structural- Water Drive 160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.) 12 Strat. Depletion (Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision ine. 650' Bank sands.) Oil: 330' from legal subdivision ine. 650' Bank sands.) Oil: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 250' Day and	COW CREEK Charles (Miss.)		2	Structural	Water Drive		ne
Strat. Water Drive Section 33, N/\$NW¼ of Section 4, and N½NE¼ of Section 5. (Order 29-70.) Strat. Water Drive Section 33, N/\$NW¼ of Section 4, and N½NE¼ of Section 5. (Order 29-70.) Strat. Depletion (Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil & Gas Strat. Water Drive permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision. 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Section 32, X,	COW CREEK, EAST Kibbey (Miss.)	(Shut-in)	9 -	Structural	Water Drive		Produced water disposed into Dakota formation. (Order 30-A-75).
10 Structural- Water Drive 160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.) Strat. Depletion (Kootenal formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision line. 650' between wells in same formation. 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4	CULBERTSON Red River (Ord.)		-	Structural- Strat.	Depletion- Water Drive		ne
Strat. Depletion (Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330′ from legal subdivision line. 650′ between wells in same formation. 5-spot on 40-acre tract permitted. 75′ topographic tolerance. (Order 10-54.) Gas: 330′ from legal subdivision, 2400′ between wells in same formation. 75′ topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4	CUPTON Red River (Ord.)		10	Structural- Strat.	Water Drive	closer	nne
Shut-in) 29 Strat. Water Drive between wells in some from 1950-1950 on 40-acre fract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4	CUT BANK Kootenai (L. Cret.) Oil 8	k Gas	948	Strat.	Depletion		There are 19 waterfloods in progress Water from Faule and
אנפטן סלת. מרובט וואל מי היין ורותה דרי ביין	Madison (Miss.) Oil & C (Gas only)	Ghut-in)	28 29	Strat.	Water Drive		Margine of the control of the contro

Field, Formation, Age		Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
DARLING (Included as part of Cut Bank Field)	ank Field)					
DEAN DOME Greybull (L. Cret.) Gas Oil	(Shut-in) (Shut-in)		Structural	Water Drive	State-wide. Oil ring below gas cap.	None
DEER CREEK Interlake (Sil.)	(Shut-in)	← 4	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE½ and SW½ of	Excess produced water is disposed into Dakota and Lakota
Red River (Ord.)	(Shut-in)	2	Structural	Water Drive	each quarter section with 75′ topographic tolerance. (Orders 23-55 & 14-59.) Commingling of production permitted upon approval of Commission Petroleum Engineer. (Order 18-63.)	formations. (Orders 6-56 & 3-58.) Two Silurian wells shut-in.
DELPHIA Amsden (Penn.)		-	Structural	Water Drive	State-wide.	None
DEVIL'S BASIN Heath (U. Miss.)		က	Structural	Depletion	State-wide.	None
DEVON Blackleaf (U. Cret.) Gas Kootenai (L. Cret.) Oil	(Shut-in) Depleted	23	Strat. Strat.	Volumetric Depletion	State-wide. State-wide.	None None
DEVON, SOUTH Bow Island (L. Cret.) Gas	(Shut-in)	− თ	Strat.	Volumetric	Drilled on state-wide spacing. Unitized for primary production, (Order 28-71, corrected).	None
DRY CREEK Eagle (U. Cret.) Gas Judith River (U. Cret.) Frontier (U. Cret.) Gas Greybull (L. Cret.) Gas. Greybull (L. Cret.) Oil	(Shut-in)	\cdot \epsilon -	Structural- Strat. Structural Structural- Strat.	Volumetric Volumetric Volumetric- Depletion	State-wide. Field re-delineated. (Order 8-70.) Six additional gas storage wells, west end of structure.	None
DRY CREEK MIDDLE Frontier (U. Cret.) Gas		-	Structural- Strat.	Volumetric	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option with permitted well no closer than 660' from spacing boundary (Order 25-75.)	None
DWYER Ratcliffe (Miss.)	(Shut-in)	10	Structural- Strat.	Water Drive- Volumetric	160-acre spacing units; well location in center of SE¼ of spacing unit with 175' topographic tolerance. (Orders 25-60, 29-61.)	Produced water disposed into Dakota formation. (Order 26-63.) Waterflood. (Order 20-68.)
EAST KEITH & KEITH Bow Island (L. Cret.) Gas Dakota (L. Cret.) Sawrooth-Madison (JurMiss.) Gas		7 1 2	Structural	Water Drive	State-wide, except unitized portions spaced by (Order 22-62). Pooling (Order 19-66).	None

Field, Formation, Age	Prod.	of Trap	Drive	Field Rules, and Remarks	or Water Disposal
ELK BASIN (Mont. Portion) Frontier (U. Cret.) (Shut-in) Embar-Tensleep (Perm., Penn.) Oil and Gas	14 12 18 14	Structural	Gravity Drainage Gravity Drainage	Rule No. 203 (Spacing) is waived within Unit Area. (Order 10-61.) Gas to Elk Basin gasoline plant.	Frontier: Water injection. (Order 1-72.) Embar - Tensleep; pressure maintenance by crestal gas injection. Waterflood
Madison (Miss.) (Shut-in)	20	Structural	Water Drive		approved in 1966. (Order 5-66.) Madison: Water injection (Order 17-61.)
ELK BASIN, NORTHWEST Frontier (U. Cret.) (Shut-in) Embar-Tensleep (Perm., Penn.)	დ44	Structural	Depletion Gravity	Spacing waived within unitized portion except that bottom of hole be no closer than 330° from unit boundary and there be at least 1320° surface distance between wells in same	Frontier: Waterflood in progress. Embar - Tensleep: Waterflood. (Order 3-57.) Madison pro-
Oil and Gas Madison (Miss.)	8	Structural	Drainage Water Drive	formation; 75' topographic tolerance. (Orders 43-63, 28-64.) Gas to Elk Basin gasoline plant.	water.
ETHRIDGE AREA Bow Island (L. Cret.) Gas (Shut-in)	ო	Strat.	Water Drive	State-wide.	None
Swift (U. Jur.) Gas (Shut-in)	დ –	Strat.	Water Drive	State-wide, except two wells by (Order 28-65).	
FAIRVIEW Winnipegosis (Dev.) Oil & Gas Red River (Ord.) Oil & Gas	- ∞	Structural	Water Drive Water Drive	160-acre spacing unit. Well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 48-65, 1-67, 43-67, 44-67.) Gas to Fairview plant.	Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70.) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71.)
FERTILE PRAIRIE Red River (Ord.)	7	Structural- Strat.	Water Drive	80-acre spacing units consisting of north-south rectangular units. Well location in NWV4 and SE74of quarter section with 75' topographic tolerance. (Orders 3-56, 7-62.)	None
FLAT COULEE Bow Island (L. Cret.) Gas Bakota (L. Cret.) Gas Swift (Jur.) Gas Swift (Jur.) Oil Swift (Jur.) Gas Swift (Jur.) Gas Santooth (Jur.) Gas	203	Structural Strat. Strat. Strat. Strat. Strat.	Depletion Depletion Depletion Depletion Depletion Depletion	330' from boundary of legal subdivision and 1320' from other wells in same reservoir. (Order 16-55.) State-wide, exception (Order 11-66.) State-wide gas spacing. 40-acre spacing units. Well in center of spacing unit with 150' topographic tolerance. (Orders 16-62, 19-63.) State-wide.	Waterflood unit and redeliniation approved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71.)

	Prod.	Type	Probable Drive	Spacing Regulations, Field Rules, and	Secondary Recovery
Field, Formation, Age	Wells	Trap	Mechanism	Remarks	Water Disposal
FLAT LAKE Nesson (Miss.) Ratcliffe (Miss.)	1 21	Strat. Structural-	Partial Water Drive Partial	160-acre spacing units; well location in center of NE½ of quarter section with 200 topographic tolerance. Wells no closer than 961' to North Dakota state line and no closer than 160'. A Condisor line 10 does 10.65 amonded 43.	Excess salt water disposed into Muddy, Dakota, or Lakota formations, (Orders 39-66.)
(unique)		011 81.		65, 23-66, 33-66.)	field. (Order 7-71.) Unit operation for western part of field. (Order 32-74.)
FLAT LAKE, SOUTH Ratcliffe (Miss.) (Shut-in)	ოო	Structural- Strat.	Partial Water Drive	Same as Flat Lake spacing. (Order 2-67.)	Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19-67.)
FOUR MILE CREEK Red River (Ord.)	-	Structural	Depletion	320-acre spacing units. (Order 43.75).	None
FRANNIE (Mont. Portion) Tensleep (Penn.)	~	Structural	Comb. Water Drive and Gravity Drainage	10-acre spacing units; well location in center of each unit with 100' topographic tolerance. (Order 35-63.)	Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids. (Order 21-70.)
FRED & GEORGE CREEK Sunburst (L. Cret.) Oil & Gas (Shut-in) Swift (U. Jur.) Oil & Gas	12 2 1	Strat. Strat,	Depletion Depletion	Oil: 40-acre spacing units; well location in center of unit with 250' topographic tolerance. (Orders 29-63, 1-65.) State-wide.	Sunburst waterflood initiated July, 1970, using water from Madison, (Order 13-70) and Eagle water. (Order 27-71.)
FROID, SOUTH Red River (Ord.)	-	Structural- Strat.	Depletion	State-wide.	None
FT. GILBERT Red River (Ord.) (Shut-in)	1 2	Structural- Strat.	Depletion	State-wide.	None
GAGE Amsden (Penn.)	-	Structural	Water Drive	State-wide.	None
GAS CITY Red River (Ord.)	17	Structural	Depletion- Water Drive	80-acre spacing units consisting of E½ and W½ of quarter sections; well location in NW¼ and SE¼ of quarter section; 150' topographic tolerance. Spacing waived and state-wide Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are waived in unitized portion of field. (Order 29-62.)	Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64.) Waterflood using produced water and Madison water. (Order 16-69.)
GIRARD Red River (Ord.)	-	Structural- Strat.	Depletion- Water Drive	State-wide.	None

Oil & Gas 15 Structural Depletion- (Shut-in) 1 Structural Water Drive? as (Shut-in) 1 Structural Water Drive? E Gas (Shut-in) 2 Structural Strat. Oil & Gas 29 Structural Partial Strat. (Shut-in) 32 Structural Depletion Strat. on (Dual) Strat. Strat. Strat. Strat. Strat. Structural Unknown Gas 1 Structural Unknown Strat.	80-acre enacing units consisting of any two adjacent	
Shut-in) 1 Structural Water Drive? Shut-in) 2 Structural- Shut-in) 2 Structural- Shut-in) 4 Strat. 32 Structural- Strat. 33 Structural- Strat. 5 Structural Unknown 1 Structural Unknown 5 Structural Unknown 5 Structural Unknown 7 Structural Unknown 8 Structural Unknown 9 Structural Unknown 9 Structural Unknown 9 Structural Unknown 9 Strat.	guarder against Constant and advantage of the content of NE's and SW's of each quarter section with 75' topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66.)	Excess produced water disposed into Swift, Dakota and Judith River formations. (Orders 16-56, 16-63, 40-A-70.)
Shut-in) 2 Structural- Strat. 29 Structural- Strat. 32 Strat. 32 Strat. 33 Strat. 34 Strat. 5 Structural- 5 Structural- 1 Structural- 1 Structural- 5 Structural- 5 Structural- 1 Structural- 5 Structural- 6 Structural- 7 Structural- 8 Structural- 8 Structural- 9 Structural- 1 Structural- 1 Structural- 1 Structural- 5 Structural- 8 Structural- 1 Structural- 1 Structural- 1 Structural- 2 Structural- 3 Structural- 5 Structural- 8 Structural- 1 Structural- 1 Structural- 1 Structural- 2 Structural- 3 Structural- 5 Structural- 6 Structural- 7 Strat.	640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59.)	None
Shut-in) 4 Strat. Water Drive Strat. Water Drive Strat. 32 Structural- Depletion Strat. 3 Structural- Depletion Strat. 5 Structural Unknown 1 Structural- Unknown 5 Structural- Strat.	160-acre spacing; 660' from spacing unit boundary.	None
1 Structural- Depletion Strat. 32 Structural- Depletion Strat. 3 Structural- Depletion Strat. 5 Structural Unknown 1 Structural Unknown 5 Structural- Unknown 5 Structural- Strat.	Unitized. (Order 17-72.)	Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68.)
5 Structural Unknown 1 Structural Unknown 5 Structural Unknown Strat.	40-acre spacing units; well location no closer than 330' from legal subdivision. (Cut Bank and Madison) Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease. 75' topographic tolerance. (Order 73-62.)	None
5 Structural- Unknown Strat.	320-acre spacing units aligned in a north-south direction; well locations no closer than 660' to a spacing unit boundary (Order 49-67.) Dual completion with Bow Island.	None
	State-wide.	None
GYPSY BASIN Sunburst (L. Cret.) Oil & Gas 4 Structural- Comb. Water 330' from lease lines and formation. Only two wells p Strat. Drive and formation. Only two wells p Depletion (Order 7-66.) Strat. Drive and Depletion	330' from lease lines and 660' between wells in same formation. Only two wells per quarter-quarter section. (Order 7-66.) Same as Sunburst	Order 6-64 permits injection of excessive gas (produced with oil) into the Sunburst gas cap.

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
Sawtooth-Madison (Jur. & Miss.) Oil & Gas	7	Structural- Strat.	Comb. Water Drive and Depletion	(Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330' from lease line. (Order 7-66.) (Sawtooth-Madison) Gas: 160-acre spacing units; well locations in center of any quarter-quarter section in each 160-acre unit, 2340' between gas wells. 150' topographic tolerance. (Order 13-59.)	
HARDIN Frontier (U. Cret.) Gas (Shut-in)	17	Strat.	Volumetric	State-wide.	None
HAVRE Eagle (U. Cret.)	-	Structural- Strat.	Water Drive Depletion	State-wide. Single well used in town of Havre.	None
HAY CREEK Mission Canyon (Miss.)	-	Structural	Depletion	State-wide.	Water disposal into Red River.
Red River (Ord.)	7	Structural	Volumetric Water Drive	320-acre spacing, any two adjacent quarter sections, direction to be determined by operator. Location no closer than 660' from unit boundary. (Orders 15-69, 27-73.) Gas to Brorson plant.	
HIAWATHA Tyler (L. Penn) (2 sands)	4	Structural- Strat.	Depletion	State-wide.	None
HIBBARD Amsden (Penn.)	-	Unknown	Water Drive	State-wide.	None
HOWARD COULEE Tyler (L. Penn.)	-	Structural- Strat.	Unknown	State-wide.	None
INJUN CREEK Tyler (Penn.) Abandoned.	0	Strat.	Depletion	State-wide.	None
IVANHOE Morrison (U. Jur.)	7	Structural-	Depletion	40-acre spacing unit for production from any one common	Waterflood of Tyler B & C sands
Amsden (L. Penn.) (Shut-in)	- 1	Structural Strat.	Water Drive	formation, wer location in center of thit with 200 topographic tolerance. (Order 7-60 and 9-56).	discontinued.
Tyler (L. Penn.)	ဂ	Structural- Strat.	Depletion		

Field, Formation, Age	Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
JIM COULEE					
Tyler (L. Penn.)	18	Structural Strat.	Depletion Water Drive	Unitized (Order 18-72.) No well closer than 330' from unit boundary.	Waterflood; produced and Third Cat Creek water.
KEG COULEE					
Tyler (Penn.) Oil & Gas (Shut-in)	2 3	Strat.	Depletion	40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64.) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62.) (40-acre spacing: W½ E½ and W½ Sec. 35-11N-30E; NW¼ Sec. 2-10N-30E). (Order 23-72). Topographic tolerance varies from 100′ to 250′. (Orders 11-60, 4-64, 23-64.) Buffer zone waived. (Order 16-65).	Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69.) Madison water injected.
KEG COULEE, NORTH Tyler (Penn.)	ო	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit	None
	•			with 150' topographic tolerance. (Order 46-64.) Buffer zone waived. (Order 16-65.)	<u>.</u>
KEITH (see East Keith)					
KELLEY					
Tyler (Penn.)	ო	Strat.	Depletion	State-wide, 250' topographic tolerance. (Order 15-67.)	Waterflood using Third Cat Creek water. (Order 8-69.)
KEVIN-SUNBURST Sunburst (L. Cret.) Oil & Gas	37	Strat.	Depletion	9 wells per 40-acre tract: only 3 wells on any side of tract set	There are five waterfloods in
Swift (U. Jur.)	~	Structure		back at least 220' from line. Field delineated by (Orders 8-54, 28-55.) (Estimated 400 wells shut-in.)	operation, using Madison water. (Orders 9-64, 17-64, 30-64, 36-
Sun River (Miss.) Oil & Gas Gas only (Shut-in)	304	Structure- Strat.	Depletion		65, 29-71.)
KICKING HORSE Bow Island (L. Cret.) Sawtooth (Jur.) Gas	ω 4	Structural	Depletion	320-acre spacing with location permitted no closer than 660' from unit boundary and 990' from field boundary. (Order 17-74.) One 640-acre unit. (Order 17-74.)	None
LAIRD CREEK Swift (U. Jur.) Oil & Gas (Shut-in)	=-	Strat.	Depletion	State-wide. One shut-in gas well.	Unitized and waterflood authorized in Swift for oil production. (Order 25-74.)
LAKE BASIN Telegraph Creek (U. Cret.) Gas Virgelle (U. Cret.) Gas	ω	Structural- Strat.	Volumetric	160-acre spacing units to base of Virgelle; wells no closer than 660' from unit boundary and 990' from field boundary. Commingling permitted after administrative approval. (Order 9-74.) Gas from Telegraph Creek pooled. (Order 29-75.)	o O S

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LAKE BASIN, NORTH Eagle, Frontier (U. Cret.) Gas (Shut-in)	5.2	Structural	Unknown	640-acre spacing units consisting of one section. Locations 990' from section line. (Order 3-74.)	None
LANDSLIDE BUTTE Sun River (Miss.) (Shut-in)	7 -	Unknown	Water Drive	State-wide.	None
LAREDO Eagle (U. Cret.) (Shut-in) Judith River (U. Cret.) (Shut-in)	121	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 990' from unit boundary. (Order 8-74.)	None
LEARY Muddy (L. Cret.)	ო	Structural- Strat.	Depletion	80-acre spacing with locations in NE¼ and SW¼ of each quarter section, 200° topographic tolerance. (Order 12-69, 19-70.)	None
LEROY Judith River-Eagle Virgelle (U. Cret.) Gas (Shut-in)	24	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 660' from unit boundary and 990' from field boundary. (Order 19-75.)	None
LISCOM CREEK Shannon (U. Cret.) Gas	7	Structural- Strat.	Depletion	Spacing, one well per 640 acres, with location no closer than 990' from section boundary. (Order 20-72.)	None
LITTLE BEAVER (Mont. Portion) Red River (Ord.)	24	Structural	Comb. Depletion and Water Drive	Spacing waived and General Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 41-62.)	Waterflood of the Red River was commenced in August, 1967. (Order 3-66.) Minnelusa water.
LITTLE BEAVER, EAST (Montana Portion) Red River (Ord.)	თ	Structural	Comb. Depletion and Water Drive	Same as for Little Beaver. (Order 42-62.)	Waterflood of the Red River was commenced in April, 1965. (Order 33-64.)
LITTLE WALL CREEK Tyler (Penn.)	10	Strat.	Depletion Water Drive	State-wide.	None
LODGE GRASS Tensleep (Penn.)	~	Structural- Strat.	Water Drive	160-acre spacing units; well locations vary according to areas; 250' topographic tolerance. (Orders 26-64, 26-65.)	None

Field, Formation, Age	No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LONE BUTTE Red River (Ord.)	2	Structural	Unknown	320-acre spacing units with well location at least 660' from unit boundary. Not delineated.	None
LONETREE CREEK Red River (Ord.)	7	Structural	Depletion	320-acre spacing, wells 660' from spacing boundary, 2000' between wells. (Order 29-72.)	None
LOOKOUT BUTTE (Includes Coral Creek Unit) Madison (Miss.)	ო	Structural	Water Drive	State-wide spacing.	Water disposal into Madison.
Interlake, Red River (SilOrd.)	26	Structural	Comb. Depletion and Water Drive	160-acre spacing; well location in center of SE¼ of each quarter section with 150' topographic tolerance. (Order 21-62.) Coral Creek Unit not subject to spacing rules. Redelineated per (Order 7-63.)	(Order 68-62.) Waterflood of Silurian-Ordovi- cian approved in 1966. (Order 35-66.) Water from Minnelusa.
MASON LAKE Lakota (L. Cret.)	2	Structural	Water Drive	State-wide.	None
MELSTONE Tyler (Penn.)	4	Structural- Strat.	Depletion	State-wide.	None
MIDDLE BUTTE Bow Island (Cret.)	7	Structural	Volumetric	320-acre spacing units consisting of E½ & W½ of each section; well location in center of either of the inside quarter-quarter sections located in E½ of each spacing unit. 75° topographic tolerance. (Order 3-60.) Re-delineated.	None
MINERAL BENCH Duperow (Dev.)	-	Structural	Water Drive	(Urder 21-75.) State-wide.	Water disposal into Dakota-
MINERS COULEE Sunburst (L. Cret.) Swift (U. Jur.) Madison (Miss.) Sunburst-Swift Gas (Shut-in)	7 8	Strat. Strat.	Depletion Depletion Water Drive	Oil: 40-acre units consisting of quarter-quarter sections; well location no closer than 330' from lease or property line and 660' from any other well. (Order 9-66.) Order 9-66 amended to comply with Order 5-74. Gas: 160-acre spacing with wells 990' from unit boundary. (Order 5-74.)	None None
MONARCH Mission Canyon (Miss.)	7	Structural- Strat.	Water Drive	80-acre spacing units consisting of east and west half of quarter section. Well location in SW1/4 & NE1/4 of quarter section. Location within 660' square at center of quarter section. (Order 18-61.)	Produced water is disposed into the salt water disposal system for the Pennel Field.

(Shut-in) 10 Structural Water Drive (Shut-in) 3 Structural Water Drive (Shut-in) 1 Structural Water Drive (Shut-in) 1 Structural Water Drive (Shut-in) 1 Structural Unknown Th 1 Structural Depletion 2 Structural Depletion 2 Structural Strat. Water Drive Strat. Water Drive Strat. Water Drive Strat. Structural Water Drive Strat. Structural Water Drive Strat. Structural Water Drive Strat. Structural Water Drive Strat.	Field, Formation, Age	No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
(Shut-in) 3 Structural Water Drive (Shut-in) 1 Structural Water Drive 3 Structural Water Drive 2 Structural Water Drive Water Drive 1 Structural Unknown 1 Structural Depletion 2 Structural Depletion 2 Structural Depletion 3 Structural Water Drive Strat. 5 Strat.	Interlake, Red River (SilOrd.)	10	Structural- Strat.		160-acre spacing units consisting of a quarter section; well location in center of SW½ of each quarter section with 175′ topographic tolerance. (Orders 12-59, 4-63.)	Waterflood initiated 12-1-73. (Order 23-73.)
(Shut-in) 3 Structural Water Drive 3 Structural Water Drive Structural Water Drive Water Drive Structural Unknown 1 Structural Depletion 2 Structural Depletion 2 Structural Depletion Strat. 3 Structural Water Drive Strat.			Structural- Strat.	Water Drive	Listed as part of Cat Creek.	Waterflood, 2nd Cat Creek sand. (Order 8-68.) Water-flood in Amsden. (Order 11-71.)
3 Structural Water Drive (Shut-in) 1 Structural Unknown (Shut-in) 1 Structural Unknown 2 Structural Depletion 1 Structural Depletion 2 Structural Water Drive 3 Strat. 3 Structural- Water Drive 5 Strat. 3 Structural- Water Drive 5 Strat. 3 Structural- Water Drive 5 Strat.			Structural	Water Drive	Spacing waived. Future development requires administrative approval of the Commission. (Order 27-62.)	None
Structural Water Drive (Shut-in) 1 Structural Unknown 2 Structural Depletion 2 Structural Depletion 1 Structural Depletion 2 Structural Strat. 3 Structural Water Drive Strat. 3 Structural Water Drive Strat. 3 Structural Water Drive Strat. 3 Structural Strat.	MT. LILLY Madison (Miss.) Gas	ო	Structural	Water Drive	640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance. (Order 37-63.)	None
(Shut-in) 1 Structural Volumetric State-wide. EK (Shut-in) 1 Structural Unknown 320-acre specifier from boundary, 28 2 Structural Depletion State-wide. 2 Structural Depletion State-wide. 3 Structural Water Drive State-wide. 5 Structural Strat. 3 Structural Water Drive State-wide. 5 Strat.	MUD CREEK Amsden (L. Penn.)	7	Structural	Water Drive	640-acre spacing unit. Well location anywhere in 160-acre tract in center of each 640-acre well spacing unit (Order 9- 63.)	None
(Shut-in) 1 Structural Unknown 320-acre specifier from boundary, 2ktructural Depletion State-wide. 2 Structural Depletion State-wide. Strat. 3 Structural- Water Drive State-wide. Strat. 3 Structural- Water Drive State-wide. Strat. 3 Structural- Water Drive State-wide. Strat. 5 Strat. 7 Structural- Water Drive State-wide. Strat. 7 Structural- Strat. 8 Structural- Strat. 9 Strat.	NOHLY Red River (Ord.)	7	Structural	Volumetric Water Drive	State-wide.	None
EK 2 Structural Depletion State-wide. 1 Structural Depletion State-wide. 2 Structural Water Drive State-wide. 3 Structural Water Drive State-wide. 3 Structural Water Drive State-wide. 5 Structural Strat. 3 Structural Strat. 5 Structural Strat. 6 Strat.			Structural	Unknown	320-acre specified spacing units. One well per unit 660' from boundary, 2640' between wells. (Order 9-58.)	None
PREK Iorth) 2 Structural Depletion State-wide. 1 Structural Depletion State-wide. 2 Structural Water Drive State-wide. 3 Structural Water Drive State-wide. 3 Structural Water Drive State-wide. 5 Strat. 3 Structural Water Drive State-wide. 5 Strat. 5 Strat. 5 Structural Strat. 5 Strat. 7 Strat. 8 Structural Strat. 8 Structural Strat. 9 Strat.	NORTH LAKE BASIN (See Lake Basin, North)					
2 Structural Depletion State-wide. 1 Structural Depletion State-wide. 2 Structural Water Drive State-wide. 3 Structural Water Drive State-wide. 5 Strat. 3 Structural Water Drive State-wide. 5 Strat. 5 Strat. 5 Strat.	NORTH WILLOW CREEK (See Willow Creek, North)					*
1 Structural Depletion State-wide. 2 Structural- Water Drive State-wide. 5 strat. 3 Structural- Water Drive State-wide. 5 strat. 3 Structural- Water Drive State-wide. 5 strat. 5 Strat. 7 Strat. 8 Structural- Water Drive State-wide. 8 Strat. 9 Strat.	OTIS CREEK Red River (Ord.)	7	Structural	Depletion	State-wide.	None
2 Structural- Water Drive State-wide. Strat. 3 Structural- Water Drive State-wide. Strat. 3 Structural- Water Driv 160-acre spacing Strat. Strat.	OTIS CREEK, SOUTH Red River (Ord.)	-	Structural	Depletion	State-wide.	None
3 Structural- Water Drive State-wide. Strat. 3 Structural- Water Driv 160-acre spacing (Shut-in) 2 Strat.	OUTLOOK Duperow (Dev.)	7	Structural-	Water Drive	State-wide.	Produced water is disposed into
3 Structural- Water Driv 160-acre spacing (Shut-in) 2 Strat.	Winnepegosis (Dev.)	m	Structural-	Water Drive	State-wide.	formations. (Orders 16-59, 17-
tolerance. (Order 19-59A.)			Structural- Strat.	Water Drive	160-acre spacing units; well location in center of either SW1/4 or NE1/4 of each quarter section; 175' topographic tolerance. (Order 19-59A.)	65, 36-66.)

Field, Formation, Age	No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
OUTLOOK, SOUTH Winnipegosis (Dev.)	-	Structural	Water Drive	160-acre spacing; permitted wells in either SW¼ or NE¼ of quarter section; 175' topographic tolerance. (Order 19-59A.) Commingling permitted. (Order 45-64.)	Produced water disposed into Muddy and Dakota formations. (Orders 19-59, 17-65.)
OUTLOOK, WEST Winnipegosis (Dev.)	2	Structural	Water Drive	160-acre spacing units consisting of quarter sections; permitted wells in either SW1/4 or NE1/4 with a tolerance of 175°. (Order 7-67.)	Produced water disposed into Dakota formation. (Order 42-66.)
PENNEL Mission Canyon (Miss.)	ω	Structural	Depletion- Water Drive	80-acre spacing units consisting of east and west half of quarter section, wells located in center of SE¼ and NW¼ of quarter sections with 150' topographic tolerance. (Order 15-	Produced water is being injected into Dakota, Siluro-Ordovician and Madison formations. (Orders
Siluro-Ordovician Oil & Gas	103	Structural	Depletion- Water Drive	61.) 80-acre spacing units on west side and 160-acre spacing 80-acre spacing units on east side of pool. Wells to be located in SE¼ and NW¼ of each quarter section (80 acres) and in SE¼ of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63.) Commingling approved. (Order 59-62.)	10-50, 45-52, 13-164.) GA:) Waterflood for Siluro-Ordovician approved Nov. 1968.
PINE Mission Canyon (Miss.) Oil & Gas	ហ	Structural	Water Drive	Spacing and General Rules 213, 218 and 219 are waived within the Pine Unit. 80-acre spacing units outside of unit	A waterflood program for the south area was started in 1959. A
Siluro-Ordovician Oil & Gas	108	Structural	Depletion- Water Drive	area; well location in NWV4 and SE14 of quarter section; 150' topographic tolerance. (Order 37-62.) Gas through extraction plant.	waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67.) Produced water injected into Mission Canyon. (Order 10-A-74.)
P LEVNA Judith River (U. Cret.) Gas (Shut-in)	19	Structural	Water Drive	1200' from legal subdivision line; 2400' from other wells on same lease or unit; 75' topographic tolerance. (Orders 34- 54, 4-57.)	None
PONDERA Sun River (Miss.) Oil & Gas	301	Structural- Strat.	Depletion- Water Drive	Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance. Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance. (Order 9-54.)	Produced water injected into lower Madison. (Orders 11-56, 15-6, 4-65, 4-66, 20-A-71.) A small waterflood project has been in operation since 1959, being Madison water
				Gas: 1320 from legal supplyision; 3700 from other wens on same lease or unit; 75′ topographic tolerance. (Order 9-54.) General Rules 207, 211, 219, 221, 223, and 224 do not apply.	and the state of t

Methanism Methanism Mater Drive State-wide spacing: field delineated by (Order 7-55.) ral Water Drive State-wide spacing units for McGowan or "C" zone consisting of E's and W'x of each quarter section; permitted wells in NW'x and SE'x of quarter section; permitted wells in state-wide spacing. (Order 18-55.) Depletion Water Drive State-wide. Delineated. (Order 18-55.) Depletion Water Drive State-wide. Delineated. (Order 10-71.) Tal Volumetric Water Drive State-wide. S		No.	Type	Probable Drive	Spacing Regulations, Field Rules, and	Secondary Recovery
Selon Canyon fins.) Structural Water Drive State-wide spacing: field delineated by (Order 7-55.) Structural Water Drive State-wide spacing: field delineated by (Order 7-55.) Structural Water Drive State-wide spacing: field delineated by (Order 7-55.) Miss.) Structural Water Drive State-wide spacing: field delineated by (Order 7-55.) Miss.) Structural Water Drive State-wide spacing units for McGowan or "C" zone consisting of E/s and Will of each quarter section. Permitted wells in NWVs and SE's of quarter section. Permitted wells in NWVs and SE's of quarter section. Permitted wells in NWVs and SE's of quarter section. Permitted wells in NWVs and SE's of quarter section. Permitted wells in Structural Water Drive State-wide. Structural Wolumetric State-wide. Structural Water Drive State-wide for Tyle-"X" sand traservoir within Tyle	Field, Formation, Age	Wells	Trap	Mechanism	Remarks	Water Disposal
State-wide spacing: field delineated by (Order 7-55.) Structural Water Drive State-wide spacing; field delineated by (Order 7-55.) Structural Water Drive State-wide spacing units for McGowan or "C" zone consisting of E's and Willy of each quarter section. Permitted whits in NWVi and SE's of quarter section. Permitted whits in NWVi and SE's of quarter section. All other formations on state-wide spacing (Order 18-55.) HEEK Tet. Oil & Gas Structural Valumetric State-wide. Delineated. (Order 10-71.) Strat. Depletion State-wide. Delineated. (Order 10-71.) Strat. Depletion State-wide Drive State-wide. Strat. Depletion State-wide Delineated. (Order 10-71.) Strat. Depletion State-wide. State-wide. Strat. Depletion Go Structural Volumetric State-wide. Strat. Depletion Go Structural Water Drive State-wide spacing unit Wellocation 660' from spacing unit Tyler "A" sand treservoir within Tyler "A" Sand Unit except no well and Kibber permitted in one well per Auction from Tyler and Kibber permitted in one well per Auction from Tyler and Kibber permitted in one well per Auction from Tyler and Kibber permitted in one well per Auction from Tyler Tyler "A" Sand treated per Auction from Tyler and Kibber permitted in one well per Auction from Tyler Tyl			Structural	Water Drive	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance. (Order 5-62.)	None
Strat.	POPLAR, EAST Madison (Miss.) (Charles & Mission Canyon fms.) Heath (Tyler) (Penn.)		Structural Structural-	Water Drive	State-wide spacing: field delineated by (Order 7-55.)	Unitized in 1955. (Order 7-55.) Excess produced water has been injected into the Dakota Judith
### Structural Water Drive 80-acre spacing units for McGowan or "C" zone consisting of E% and W% and SE% of quarter section: permitted wells in NW% and SE% of quarter section: permitted wells in NW% and SE% of quarter section. All other formations on state-wide spacing. (Order 18-55.) ### Structural Wolumetric State-wide. Structural Wolumetric State-wide. 160-acre spacing unit. Well location 660' from spacing unit. Well location 660' from spacing unit. Tyler "X" sand unit exerpt no well can be closer than 660' to Unit boundary. (Order 35-54).	Nisku (Dev.)		Strat. Structural	Water Drive		River, and Mission Canyon formations. (Orders No. 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67, 10-83
#REEK ret. Oil & Gas Shut-in) 1 Unknown Water Drive State-wide. Shut-in) 3 Structural Shut-in) 5 Strat. Depletion Well locations subject to administrative approval. Shut-in) 5 Strat. Depletion State-wide. Delineated. (Order 10-71.) Structural Volumetric Water Drive Water Drive Water Drive Water Drive Strat. Structural Volumetric State-wide. Strat. Depletion GEO from spacing unit Well location 6EO from spacing unit of Strat. Depletion GEO from spacing unit of Tyler "4" sand reservoir within Tyler" "4" sand unit seervoir within Tyler" "4" sand Unit boundary. (Order 35-55.) Plugged O Structural Water Drive State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well permitted in the permitted in one well permitted in the permitted in one well permitted in the permitted	POPLAR NORTHWEST Charles (Miss.) ("B" & "C" or McGowan Zone)	o	Structural	Water Drive	80-acre spacing units for McGowan or "C" zone consisting of E½ and W½ of each quarter section; permitted wells in NW¼ and SE¼ of quarter section. All other formations on state-wide spacing. (Order 18-55.)	None
HEEK Shut-in) 3 Structural Shut-in) 5 Strat. Shut-in) 5 Strat. 1 Structural Wolumetric Water Drive Water Drive Strat. Structural Wolumetric State-wide. Structural Wolumetric State-wide. Structural Wolumetric Water Drive Water Drive Strat. Structural Wolumetric H60-acre spacing unit. Well location 660' from spacing unit Strat. Strat. Depletion 40-acre spacing units. 75' topographic tolerance. (Order 8-59) Spacing waived for Tyler "A" sand reservoir within Tyler "A" sand Unit except no well can be closer than 660' to Unit boundary. (Order 18-54). Commingling of production from Tyler and Kibbey permitted in one well per duction from Tyler and Kibbey permitted in one well per		1 1	Unknown	Water Drive	State-wide.	None
Structural Structural Structural State-wide Delineated (Order 10-71.)	PRICHARD CREEK Sunburst (L. Cret.) Oil & Gas Shut-ir		Strat.	Depletion	Well locations subject to administrative approval.	None. Unitized as to Sunburst for water injection. (Order 7-73.)
1 Structural Volumetric State-wide. Structural Volumetric Water Drive Water Drive Water Drive Water Drive Water Drive Strat. Strat. Depletion 69.) Spacing units: 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit boundary. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per			Structural- Strat.	Depletion	State-wide. Delineated. (Order 10-71.)	None
4 Structural Volumetric 160-acre spacing unit. Well location 660' from spacing unit Strat. Water Drive boundary. (Orders 17-73, 34-74). 21 Strat. Depletion 40-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit boundary. (Order 35-65.) Plugged 0 Structural Water Drive State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per	PUTNAM Interlake (Sil.) Red River (Ord.)		Structural	Volumetric Water Drive Volumetric Water Drive	State-wide.	None. Gas. to McCulloch Gas Processing Corp. Brorson Plant.
A0-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit boundary. (Order 35-65.) Plugged 0 Structural Water Drive State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per	RABBIT HILLS Sawtooth (Jur.)	4	Structural Strat.	Volumetric Water Drive	160-acre spacing unit. Well location 660′ from spacing unit boundary. (Orders 17-73, 34-74).	None
Plugged 0 Structural Water Drive	RAGGED POINT Tyler (Penn.)	21	Strat.	Depletion	40-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit boundary. (Order 35-65.)	A waterflood project of the Tyler "A" sand was commenced in February, 1966, using Third Cat Creek water. (Order 35-65.)
(Order 11-65.)			Structural	Water Drive	State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per (Order 11-65.)	

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
RAPELJE Claggett, Eagle, Judith River, Virgelle (U. Cret.)	15	Structural- Strat.	Water Drive	160-acre spacing. Wells no closer than 990' to unit boundary. Commingling after administrative approval. (Order 29-73.)	None
RATTLESNAKE COULEE Sunburst (L. Cret.) Oil & Gas Bow Island (L. Cret.) Gas (Shut-in)	1 2	Strat.	Depletion	State-wide.	None
RAYMOND Nisku (Dev.) Duperow (Dev.) Winnipegosis (Dev.) Red River (Ord.)	7 - 6 -	Structural- Strat.	Depletion Water Drive	320-acre spacing units. Wells 660' from spacing unit boundary. (Order 38-72.)	Produced water injected into Dakota formation. (Order 38-A- 74.)
RAYMOND, NORTHEAST Winnipegosis (Dev.) (Dual) Red River (Ord.)	7	Structural- Strat.	Depletion Water Drive	160-acre spacing units. Wells 660' from spacing unit boundary. (Order 12-74.)	None
REAGAN Sun River (Miss.) Oil Gas Gas	51 4	Structural	Gas Cap- Water Drive	State-wide. (Order 17-54.)	A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60.) Waterflood. (Order 27-72.)
REAGAN, WEST Blackleaf (U. Cret.) Gas	10	Strat.	Depletion	State-wide. Injected into Reagan field as secondary re-covery agent.	None
RED CREEK Cut Bank (L. Cret.) Oil & Gas (Shut-in) Sun River (Miss.) Oil & Gas (Shut-in)	7 2 1 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Strat. Structural	Depletion Water Drive	40-acre spacing units; wells in center of spacing unit with 75' topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70.)	Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64.) A water-flood project in the Cut Bank sand was initiated in June, 1965, using Madison water.
RED FOX Nisku (Dev.)	-	Structural	Water Drive	Field consists of one 160-acre spacing unit which straddles the section line. (Order 20-67.)	None
REDSTONE Winnepegosis (Dev.) (Shut-in)		Unknown	Water Drive	One well per 160-acre unit, but no closer than 660' from unit boundary.	None
REPEAT Red River (Ord.)	-	Unknown	Water Drive	State-wide.	None

Field, Formation, Age		Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
RESERVE Winnipegosis (Dev.) Interlake (Sil.) Red River (Ord.)	(Shut-in) (Shut-in) (Shut-in)	4-	Structural- Strat. Structural- Strat. Structural- Strat.	Water Drive Water Drive	160-acre spacing units; permitted well within 1320' square in center of quarter section. Commingling of Red River and Interlake production permitted on individual well basis. (Orders 34-66, 27-67.)	Excess water injected into Dakota sand. (Order 23-A-67.)
RICHEY Charles (Miss.)		-	Structural	Water Drive	State-wide.	Original 80-acre spacing revoked (Order 11-73.)
RICHEY, SOUTHWEST Interlake, Dawson Bay (Sil.) (Dev.)	(Shut-in)	- 2	Structural	Depletion	160-acre spacing units; wells no closer than 900' from boundary of spacing unit. (Order 25-62.)	A waterflood project in the Interlake and Dawson Bay was started in 1965. (Order 34-65.)
RIPRAP COULEE Ratcliffe (Miss.)		7	Structural- Strat.	Depletion	State-wide.	None
ROSCOE Lakota (L. Cret.)	(Shut-in)	-	Structural	Water Drive	State-wide.	None
ROSEBUD Tyler (L. Penn.)		വ	Structural- Strat.	Unknown	State-wide.	None
ROUGH CREEK Muddy (L. Cret.)	(Shut-in)	-	Structural Strat.	Depletion	State-wide. Formerly called Duncan Creek.	None
RUDYARD Sawtooth (M. Jur.) Gas	(Shut-in)	м	Structural	Volumetric	640-acre spacing units consisting of one section; well location in center of NW14 of section with 75' topographic tolerance. (Order 2-58.)	None
RUSH MOUNTAIN Winnipegosis (M. Dev.) Red River (Ord.)		-	Structural	Volumetric- Water Drive	State-wide. Dual zone completion in discovery well.	Excess water injected into Dakota sand. (Order 5-A-71.)
SALT LAKE Bakken-Nisku (MissDev.)	·;	м	Structural	Water Drive	State-wide.	None

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SAND CREEK Interlake, Red River (Sil.) (Ord.)	(Shut-in)	4 0	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NWV4 and SE¼ of each quarter section. (Order 16-59.) Commingling of production from Interlake and Red River authorized per (Order 49-62.)	Excess produced water is injected into the Swift formation. (Order 9-61.)
SECOND CREEK Red River (Ord.)		ო	Structural	Volumetric Water Drive	State-wide.	None
SHEEPHERDER Tyler (L. Penn.)		т	Structrual- Strat.	Unknown	State-wide.	None
SHELBY AREA Sunburst (L. Cret.) Gas Swift (Jur.) Gas		33	Structural- Strat.	Depletion	State-wide. Field outline not delineated. A few small Swift sand wells commingled with Sunburst.	None
SHERARD Eagle (U. Cret.) Gas	Shut-in)	∞	Structural- Strat.	Volumetric Water Drive	640-acre spacing units; 990' from section line. (Order 1-74.)	None
SHOTGUN CREEK Ratcliffe (Miss.)	(Shut-in)	-	Structural	Water Drive	State-wide.	None
SIDNEY Mission Canyon (Miss.) (Shut-in)	(Shut-in)	-	Structural	Water Drive	State-wide.	None
SIOUX PASS Interlake (Sil.) Red River (Ord.) Mission Canyon (Miss.)	Dual	m 	Structural	Volumetric Water Drive	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from unit boundary. (Interlake and Red River). 160-acre spacing unit (Mission Canyon) with well no closer than 660' from unit boundary. Commingling of Interlake and Red River	Excess water injected into Dakota formation. (Order 15-A- 75.)
SIOUX PASS, NORTH Interlake (Sit.) Red River (Ord.) Dual Winnipegosis (Dev.)	(Ord.) Dual	ო ←	Structural	Unknown	production authorized. (Order 10-75.) 320-acre spacing units with well location at least 660' from unit boundary. (Order 12-75.) Field enlarged (Order 16-75.) Commingling from Interlake and Red River approved (Order 36-74.) Refer to Order 35-75 for modification.	None
SNYDER Tensleep (Penn.)		ო	Structural	Water Drive	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance. (Order 45-62.)	None
SOAP CREEK Tensleep, Amsden, Madison (Penn.) (Penn.) (Miss.)	ison	22	Structural	Water Drive	One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100' topographic tolerance. (Order 26-60.)	None

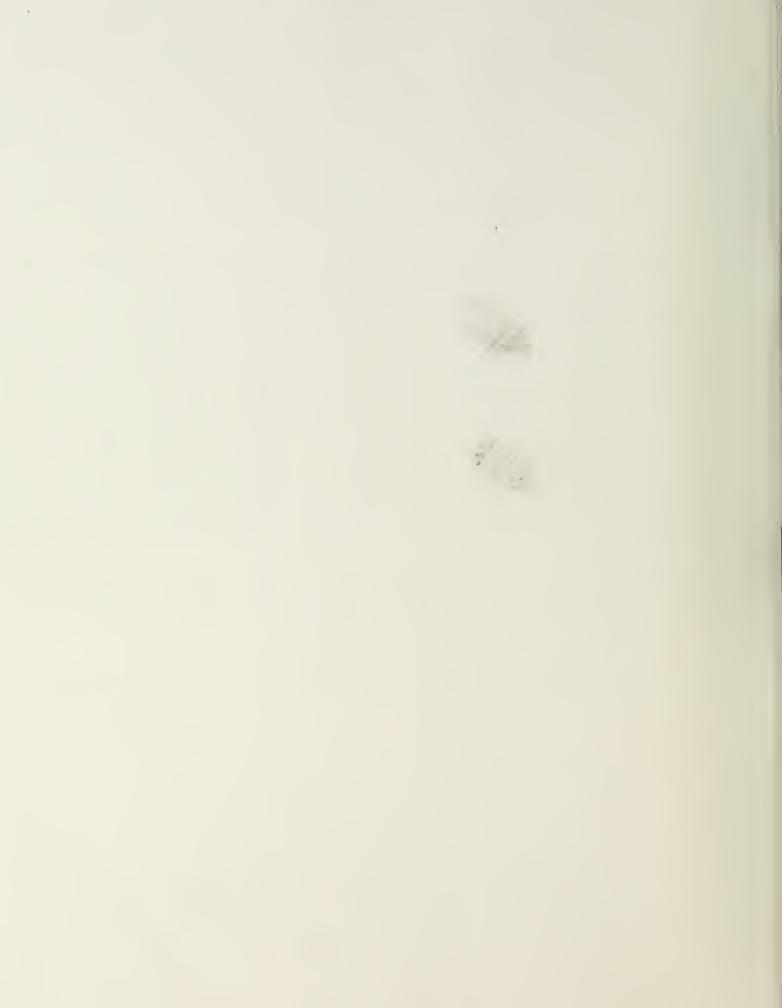
Field, Formation, Age		No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SPRING LAKE Nisku (Dev.) Red River (Ord.)	(Shut-in)	- 2	Structural Structural	Depletion Depletion	One well per 160-acre spacing unit. Well location anywhere within 840' square in center of spacing unit. (Order 6-63.)	None
SQUAW COULEE (Now included as part Ridge Field.) (Order 10-70.)	ď	Tiger				
STRAWBERRY CREEK Bow Island (L. Cret.) Gas		ო	Strat.	Depletion	State-wide.	None
STENSVAD Tyler (Penn.)	(Shut-in)	ထတ	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 200' tolerance. (Orders 2-59, 7-60.) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' from unit boundary. (Orders 5-65, Amended.)	A waterflood operation has been in progress since 1963, using Madison water. (Orders 48-67, 9-67.)
SWANSON CREEK Phillips (U. Cret.) Gas	Shut-in)	-	Strat.	Depletion	320-acre spacing units, well location SE NW each section. Wells no closer than 990' from unit boundary. (Order 36.75.)	None
SUMATRA Tyler (Penn.) Oil & Gas		94	Strat.	Depletion	40-acre spacing units; well located in center of unit with 75' tolerance. (Order 14-58.) Field re-delineated (Order 14-75.)	Four waterflood units using Madison water. (Orders 48-67, 6-69, 15-69, 3-70, 16-72,
TIGER RIDGE Judith River (U. Cret.) Gas (4	ıs (Shut-in)	2 -	Structural- Strat.	Depletion- Water Drive	160-acre spacing; location no closer than 660' to unit boundary. (Order 32-73.) State-wide, for part not unitized. Two units: (Order 11-72	24-74, 5-75.)
Eagle (U. Cret.) Gas	(Shut-in)	119	Structural- Strat.	Depletion- Water Drive	and 41-7.2.) wells 550 from unit boundary. Originally one well per section within 2640 square in center of each unit and no closer than 1320 from boundary of unit. Changed to state-wide spacing by (Order 10-70.)	(Orders 17-67, 23-68, 10-70.)
Sawtooth (Jur.) Oil	(Shut-in)	-	Structural- Strat.	Water Drive	Enlarged and re-delineated (Order 13-75.) 160-acre spacing units in Sections 22, 23, 24, 32N-14E (Eagle and Virgelle) wells at least 990' from section line and 660' from quarter section line (Order 37-75.)	•
IIMBEH CHEEK Sunburst (L. Cret.) Gas	(Shut-in)	7	Strat.	Depletion	320-acre spacing consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from spacing boundary and 990' from field boundary. (Order 24-75.)	
TRAIL CREEK Sunburst (L. Cret.) Gas		7	Structural- Strat.	Water Drive- Depletion	One well per 320 acres consisting of S½ and N½ of each governmental section but no closer than 990' from spacing boundary. (Order 33-70.)	None
TULE CREEK Nisku (Dev.)	(Shut-in)	٦ -	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 26-62, 6-65, 11-67.)	Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67.)
TULE CREEK, EAST Nisku (Dev.)		2	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 40-64, 6-65.)	Water injected into Judith River formation. (Order 13-68.)

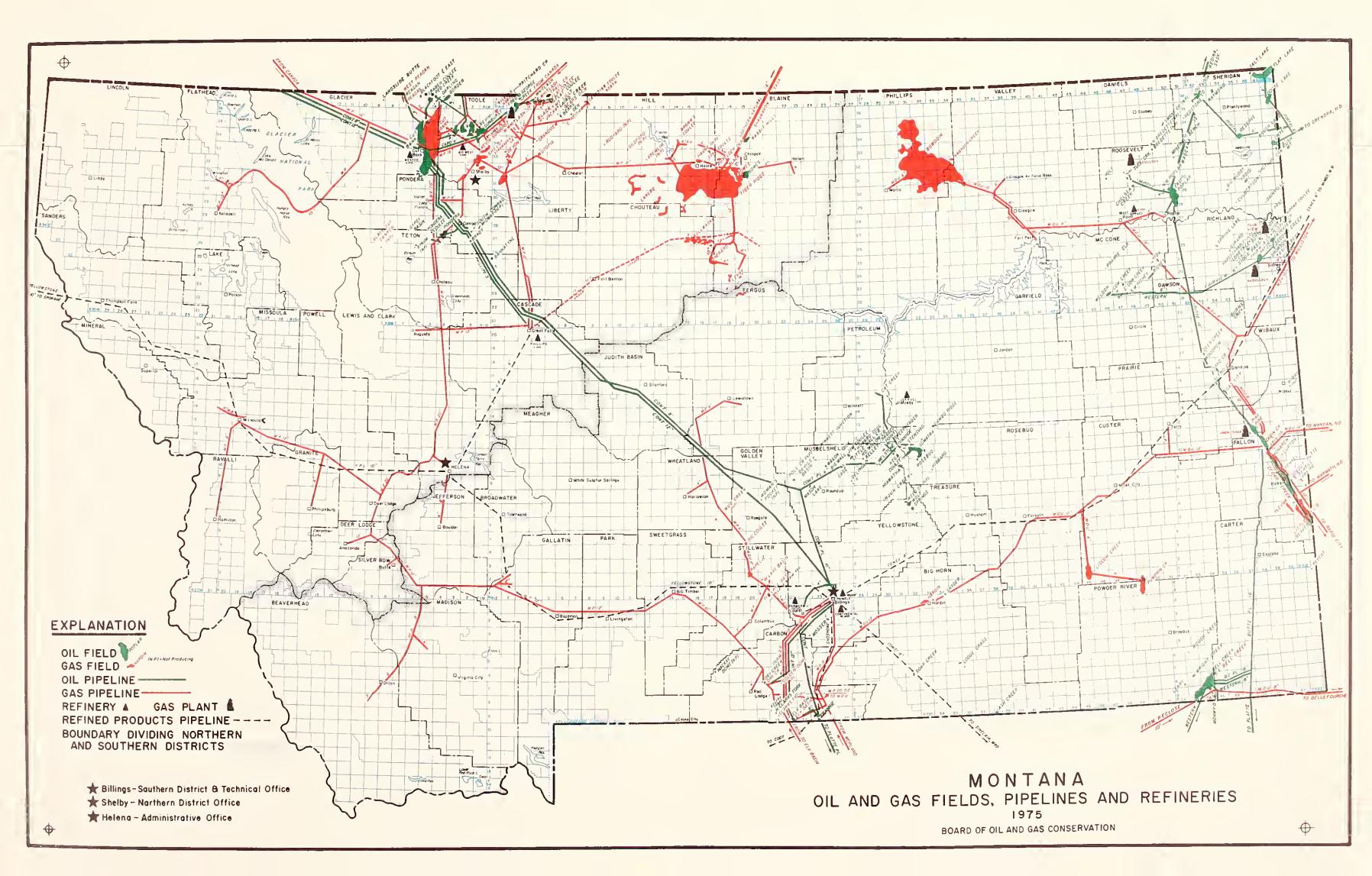
Field, Formation, Age		No. Prod.	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
TULE CREEK, SOUTH Nisku (Dev.)		ო	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit.	Authority given to dispose of produced water into Dakota. (Order 44-64.) Into Judith River formation. (Order 29-67.)
UTOPIA Sawtooth (Jur.) Gas Madison (Miss.)	(Shut-in)	e –	Structural	Depletion Water Drive	State-wide. Two wells produced small amount of oil from Swift sand.	None
VIDA Interlake (Sil.)		7	Structural	Water Drive	160-acre spacing units with permitted well anywhere within an 840' square in center of each unit. (Order 39-63.)	Water injected into Lakota formation. (Order 14-68.)
VOLT Nisku (Dev.)	(Shut-in)	2 2	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320's quare in center of each unit. (Orders 27-64,	Excess produced water is disposed into Judith River. (Order
Charles "C" (Miss.)		-	Structural	Water Drive	6-65, 32-65.) State-wide.	3-65, 37-A-74.)
WAGON BOX Tyler (Penn.)		7	Structural- Strat.	Unknown	State-wide.	None
WELDON Kibbey (Miss.)	(Shut-in)	ოთ	Structural	Partial Water Drive	80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE¼ and SW¼ of quarter section with 200° topographic tolerance. (Order 9-65.)	Excess produced water is disposed into the Dakota, Lakota, Morrison, and Charles formations. (Orders 31-65, 47-65, 37-66, 16-67.)
WEST BUTTE Sunburst (L. Cret.) Oil		-	Structural- Strat.	Depletion	State-wide, except W½ Section 16 is considered a single spacing unit.	None
Sawtooth (Jur.) Gas Madison (Miss.) Gas		-	Structural	Water Drive	Sawtooth-Madison gas commingled, unitized. (Order 5-72.) No well closer than 330' from unit boundary.	
WEST REAGAN (See Reagan, West)						

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
WHITLASH Bow Island, Kootenai, Swift (Cret.) (Jur.) (St Madison (Miss.) Gas	rift Oil (Shut-in) Gas (Shut-in)	64 C C C A	Structural- Strat.	Volumetric	Gas: 300' from legal subdivision line and 2400' between wells, 75' topographic tolerance. Oii: 330' from legal subdivision line and 650' between wells; 5-spot location at center of 40-acre tract permitted; 75' topographic tolerance. General Rules 207, 211, 219, 221, 223, and 224 suspended. (Orders 16-54, 27-70.)	None
WHITLASH, WEST Sunburst, Swift (Gret.) (Jur.) Sawtooth (Jur.)	(Shut-in) Oil Gas (Shut-in)	- o -	Strat.	Volumetric	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660' square in center of spacing unit. Oil: 330' from legal subdivision line, 650' between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended.)	None
WILLOW CREEK, NORTH Tyler (Penn.) Oil	I	7	Structural- Strat.	Depletion Water Drive	State-wide.	Pilotflood. (Order 19-72.)
WILLS CREEK, SOUTH Interlake (Sil.)		7	Structural	Partial Water Drive	160-acre spacing units. Well location in center of SE¼ of each unit with 175' topographic tolerance. (Orders 5-64, 30-66.)	Waterflood initiated 12-1-73. (Order 23-73.)
WINNETT JUNCTION Tyler (Penn.)		4	Strat.	Depletion Water Drive	State-wide.	None
WOLF SPRINGS Amsden (Penn.)		7	Structural	Water Drive	80-acre spacing units consisting of N½ and S½ of each quarter section. Well location in center of NW¼ and SE¼ of each quarter section with 75' topographic tolerance. (Order 4-56, 9-59.)	None
WOODROW Charles, Duperow, Interlake Red River (Ord.) (SI	ke (Shut-in)	4	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE¼ and SW¼ of each quarter section with 200' topographic tolerance. (Order 47-62.)	Produced water injected into Dakota. (Order 48-62.)
WRIGHT CREEK Muddly (L. Cret.)	(Shut-in)	ა ←	Strat. Strat.	Depletion Water Drive	80-acre spacing consisting of N½ and S½ of quarter section with locations in NW¼ and SE¼ of each quarter section with 200′ tolerance.	None











The content will be content	STATE OF MONT	TANA 30	THE PROPERTY OF THE	70001110	OIL	TILLU	<u> </u>	010		PRODUCTIVE		RECOVERY	MIGHT AITA D		P OIL AND GAS C	ONSERVATION
Second Property	FIELD	COUNTY	PRODUCING FORMATION		OEPTH		PAY	POROS ITY		AREA 1-1-76	0.0.1.P.	FACTOR (%)	(M BBLS.)	1-1-76	1-1-76 PRODUCTION	ULTIMATE RECOVERY (BBLS./) (BBLS.) (ACRE) (ACRE/FT.)
The content	Balnville Ro Bears Den L1 Bell Creek Po	oosavalt Ibarty owder River	Red River (Ord.) Sunburst (L.Cret.) Muddy (Cret.)	1969 1924 1967	10,300 2,300 4,400	45 39 36	1.75 38 1.08 20 1.11 10	15 12	34 16,680 35 11,210 23 13,990	320 200 16,000	5,340 2,240 223,840	23 26 26	450 450 520 520 58,000 58,000 116,000	295 405 77,549	155 17,160 47 115 9,626 26 38,451 8,671,450 23,757	4,150 296 1,410 37 2,600 130 7,250 725
March Marc	Benrud, East Ro Benrud, Northeast Ro Blg Muddy Creek Ro	oosevelt oosevelt oosevelt	Nisku (Dev.) Nisku (Oev.) Interlake (S11.) Red River (Ord.)	1962 1964 1975 1975	7,500 7,600 11,100 11,900	46 46 60 48	1.37 22 1.40 23 1.52 46 1.72 11	3	30 13,080 30 14,270 65 2,470 36 4,450	480 160 320 960	6,280 2,280 790 4,270	48 43 25 28	3,000 3,000 980 980 200 200 1,200 1,200	1,889 845 21 286	1,111 128,014 351 135 16,507 45 179 19,397 53 914 273,570 750	2,610 119 6,250 284 6,130 267 630 14 1,250 114
The state of the	Big Wall Mu Big Wall Hu Blackfoot Gl Blackfoot Gl Cl Cl Cl Cl Cl Cl Cl	usselshell lacler (lacler)	fyler (Penn.) Cut Bank (L. Cret.) Madison (Miss.)	1948 1955 1955	3,600 3,500 3,600	31 30 25	1.02 22 1.11 15 1.15 0	16 17 15 14	40 17,070 35 10,220 40 4,530	1,220 160 480	20,830 1,640 2,170	20 26 36	5.300 500 6,400 420 780 1,200	5,3-2 1,045	458 62,861 172 155 18,177 50	2,500 147 5,250 239 2,630 175 1,630 204 2,450 66
Column	Brorson RI Brorson RI Brorson, South RI	Ichland I Ichland i Ichland i	Madison (Miss.) Red River (Ord.) Red River (Ord.)	1954 1968 1968 1969	9,600 12,600 12,600 11,400	32 48 48 40	1,40 40 1,70 20 1,70 20 1,50 30	5 10 12 14	40 6,650 35 5,930 30 7,670 35 14,120	1,120 1,440 480 2,240	7,450 8,540 3,680 31,630	15 25 43 9	1,100 1,100 2,100 2,100 1,600 1,600 2,700 2,700	731 1,743 910 1,532	369 30,656 84 357 63,900 175 690 71,921 197 1,168 132,435 363	980 25 1,460 73 3,330 167 1,210 40
The column	Cabin Creek Fa Cabin Creek Fa Canal Ri	allon : allon : ichland :	Hadison (Miss.) STTuro-Ordovician Red River (Ord.)	1956 1953 1970	7,300 9,000 12,700	33 33 47	1.13 25 1.20 50 2.07 58	11 13 8	30 13,220 30 29,420 40 10,430	2,260 7,620 320	29,880 224,180 3,340	23 11	14,600 14,600 51,000 24,000 75,000 500 500	13,166	1,434 316,281 867 18,640 1,696,298 4,647	630 45 6,460 258 9,840 197 1,560 27 3,500 350
The content	Cat Creek Pe Cat Creek Pe Cat Creek (West Dame) Pe	etroleum, Garfield : etroleum, Garfield etroleum	Morrison (U.Jur.) Ellis (U. Jur.) Kootenai (L. Cret.)	1945 1945 1920	1,600 1,700 1,100	52 52 52	1.10 6 1.10 25 1.10 51	22 18 21	40 5,590 40 19,040 19 61,180	240 880 900	1,340 16,760 55,060	26 1 27 6	4,400 100 4,500 14,600 3,300 17,900	17,332	568 72,228 198	3.500 350 1.670 278 5.110 704 19.890 390 1.380 138
Column	Cow Creek Mc Cow Creek, East Mc Cupton Fa Cut Bank Glacier, To	cCone (cCone in alloh Toole, Pondera in alloh in	Kibbey (Miss.) Red River (Ord.) Kootenal (L.Eret.)	1971 1955 1532	6,300 9,600 2,900	35 38 31	1.05 15 1.25 40 1.09 18	15 12 15	35 10,810 30 20,850 35 12,490	300 1,600 49,000	3,240 33,360 612,010	52 5 20 5	1,700 1,700 1,700 1,700 122,500 32,500 155,000	940 921 137,345	53 6,231 17 760 166,427 456 779 131,522 360 17,655 2,448,276 7,708	630 25 5,670 378 1,060 27 3,160 176
Column C	Deer Creek Da Dwyer Sh Elk Bas In Ca	awson heridan i arbon i	Interlako (SIL.) Ratoliffe (Miss.) Frontier (U. Cret.)	1956 1960 1915	9,400 8,000 1,200	43 37	1.20 38 1.32 38 1.16 30	7	30 12,040 56 10,810 20 33,710	320 3,840 120	3,850 41,510 4,050	34 11 4	1,130 1,300 4,500 1,500 6,000 1,500 600 2,100	1,190 5,391 1,506	110 11,058 30 609 118,816 326 594 30,651 84	2,340 234 4,060 107 1,560 41 17,500 583 38,210 308
Print Prin	Elk Basin Ca Elk Basin, Northwest Ca Elk Basin, Northwest Ca Fairview Ri	arbon arbon arbon ichland	Madison (Miss.) Tensleep (Penn.) Madison (Miss.) Minnipegosis (Dev.)	1942 1964 1947 1967	5,300 6,000 6,200 11,500	37 35 43	1.15 27 1.08 124 1.10 27	12	9 169,430 22 17,050 35 69,480 30 9,330	920 580 200 160	155,880 9,890 13,900 1,490	7 20	14,000 9,500 23,500 1,000 300 1,300 1,000 1,000 300 300	17,339 1,175 927 249	6,161 633,906 1.737 125 28,286 77 73 3,458 9 51 10,514 29	25,540 114 2,240 83 5,000 40 1,880 70
Property	Fertile Prairie Fa Flat Coulee Ll Flat Lake Sh	allon .lberty .heridan	Red River (Ord.) Swift (U. Jor.) Ratcliffe (Hiss.)	1952 1933 1964	9,300 2,900 6,500	29 37	1.20 6 1.10 18 1.26 14	21	27 3,960 35 17,330 45 7,110 45 3,660	400 1,280 9,600	1,580 22,180 68,260	35 13 14 7	550 550 2,800 2,400 5,200 9,300 5,100 14,400	395 2,707 9,080	155 13,590 37 2,493 126,530 347 5,320 615,432 1,686	3,540 101 1,380 230 4,060 226 1,500 107 1,520 169
Section Column	Fort Gilbert RI Frannie Ca Fred & George Creek To Fred & George Creek To	Ichland arbon oole oole	Red River (Ord.) Tensleep (Penn.) Sunburst (L. Cret.) Swift (U.Jur.)	1970 1928 1963 1963	12,500 2,700 2,600 2,700	39 39	1.89 42 1.02 29 1.20 31 1.10 8	27 14	20 16,550 16 35,200 30 37,880 30 5,530	640 80 880 840	10,590 2,820 33,330 4,650	27 20	1,300 1,300 750 750 7,700 6,700 14,400 1,300 1,300	912 686 8,525 1,054	388 81,944 225 64 8,170 22 5,875 434,514 941 246 35,765 98	2,030 48 9,380 323 16,360 528 1,550 194
Company Comp	Gas City Da Girard RI Glandive Da	Jawson Tichland Jawson	Red River (Ord.) Red River (Ord.) Red River (Ord.)	1955 1969 1952	8,900 11,900 8,900	38 46 38	1.28 25 1.15 18 1.25 147	12 15 8	35 11,820 40 10,930 35 47,440	2,800 320 1,280	33,100 3,500 60,720	10	8,600 2,000 10,600 350 350 13,500 13,500	8,359 299 10,235	2,241 234,238 642 51 6,967 19 3,265 252,924 693	1,250 104 3,750 152 1,090 61 10,550 72 1,340 34
Company	Graben Coulee G1 Gumbo Ridge Ro Hay Creek Ri Hay Creek RI	ilacler Rosebud Richland Richland	Sunburst, Cut Bank, Madison Tyler (Penn.) Red River (Ord.) Mission Canyon (Miss.)	1961 1975 1969 1969	2,900 4,900 12,600 9,600	34 32 46 39	1.10 15 1.10 16 1.90 53 1.15 40	12 13 12 5	30 8,890 35 9,540 25 19,480 30 9,440	470 160 640 160	4,180 1,530 12,470 1,510	8 13	2,000 2,000 400 400 1,000 1,000 200 200	1,117 69 787 132	883 73,751 202 331 69,065 189 213 32,557 89 68 11,488 31	4,260 284 2,500 156 1,560 29 1,250 31
Color	Ivanhoe Mu Jim Coulee Mu Keg Coulee Mu	jusselshell fusselshell fusselshell	Tyler (Penn.) Tyler (Penn.) Tyler (Penn.)	1956_ 1971 1960	4,100 3,700 4,600	33	1.08 29 1.10 37 1.15 19	15 15	20 25,000 33 26,230 32 12,200	840 1,320	15,000 22,030 16,100	27 17 9	4,000 4,000 3,800 2,000 5,800 4,400 2,700 7,100	3,788 2,050 4,390	212 30,905 85 3,750 500,029 1,370 2,710 110,637 303	4,170 123 6,670 230 6,900 186 5,380 283 3,330 238
Company Comp	Kevin-Sunburst To Laird Creek Li Leary Po	oole Derty Owder River	Madison-Sunburst (MissL.Cret.) Swift (Jur.) Muddy (Cret.)	1922 1968 1969	1,500 2,800 5,800	32 39 41	1,08 7 1,10 14 1,15 7	20 16 17	35 6,540 25 13,030 33 5,380	40,200 480 240	262,910 6,250 1,290	27	70,000 10,000 80,000 550 250 800 350 350	71,516 422 200	8,484 307,958 844 378 22,945 63 150 26,626 73	5,000 100 1,990 284 1,670 119 1,460 209 4,600 124
Company Comp	Little Beaver, East Fa Little Wall Creek Mu Lone Butte RI	allon lusselshell lichland	Red River (Ord.) Tyler (Penn.) Red River (Ord.)	1954 1970 1974	8,300 3,700 12,400	30 33 45	1.50 24 1.10 40 1.70 14	13 15 11	35 10,490 33 28,350 30 4,920	1,600 400 640	16,780 11,340 3,150	23 14 21 16	3,900 2,300 6,200 2,500 2,500 500 500	3.918 791 114	2,282 147,268 403 1,709 364,259 998 386 70,448 193	3,880 162 6,250 156 780 56 1,340 71
Other Activate Section Cont.	Lookout Butte Fa Melstone Mu Monarch Fa	allon (usselshell 1 allon	Red River (Ord.) Tyler (Penn.) Miluro-Ordovician	1961 1948 1958	8,000 9,900 4,300 8,400	33 34 32	1.15 15 1.09 25 1.10 31	. 15 . 15	35 11,600 25 11,380 30 18,680 35 9,950	1,920 6,100 360 2,240	22,270 69,420 6,720 22,290	8 19 13 -27 22 2	1,700 1,700 13,000 9,100 22,100 1,800 1,800 4,900 500 5,400	1,425 14,981 1,673 3,519	275 37,725 103 7,119 529,077 1,450 127 17,256 47 1,881 125,137 343	890 34 3,620 241 5,000 200 2,410 78 1,880 70
Company Comp	Ot Is Creek Ri Out look Sh Out look Sh	ichland i herldan i heridan i	Red River (Ord.) Siluro-Devonian Duperow (Dev.)	1970 1956	9,000	48 38	1.78 23 1.12 20 1.50 15	12	35 7,820 30 7,760	64a 1,600	5,000 12,420 3,720	9 48 35	450 450 6,000 6,000 1,300 1,300	296 5,254	154 40,791 112 746 105,832 290	700 30 3,750 188 2,030 135
Foliar Part	Outlook, West Sh. Pennel Fa Pennel Fa	heridan k alion s alion k	linnipegogis (Oev.) Siluro-Ordovician Hisalon Cao on Miss	1958 1955	9,100	39	1.12 16 1.14 25 1.10 8	8 8 11	30 6,210 35 12,160	320 22,380 20	1,990 272,140 4,00	35 11 8	700 700 31,000 21,800)	318 511	82 10,242 28 181 19,255 53	1,670 93 2,190 137 2,360 94 2,190 73
2 Politar, morthwest	Pondera Por Poplar, East Roy Poplar, East Roy	arton ondera posevelt	siluro-Urdovician Madison (Miss.) Madison (Miss.)	1952 1927 1952 1969	8,400 2,100 5,500	34 40	1.17 32 1.20 15 1.10 25	16	30 17,820 31 10,710 30 13,580	13,320 5,560 18,070	237,360 59,550 245,390	24 20 42 18	25,000 25,000 45,000 45,000	20,302 41,272	4,698 287,124 787 3,728 428,314 1,173	7,860 246 4,500 300 2,490 100 630 79
# Agrond Sheridan # Nav (Gr.) 977 950 53 1,40 2 8 2 4,250 330 1,560 8 500 500 30 30 35 34 35 3 3 3 3 3 3 3 3	Poplar, Northwest Roc Putnam Ric Rabbit Hills 81	oosevelt fi lichland S laine S	Hadison (Hiss.) Siluro-Ordovician Sawtooth (Jur.)	19 9 1952 1969 1972	6,300 11,900 4,000	41 21	1.10 16 1.75 16 1.15 12	10 9 18	45 6,210 30 4,470 16 12,240	800 320 640	4.970 1.430 7.830	20 42 8	1,000 1,000 600 600 600 600	1 5 527 486 204	473 32,078 90 114 32,061 88 396 64,115 176	7*0 78 1,250 78 1,880 118 940 78 3,310 255
## Asproach, Northeast Sher Idan Vinnipeges Is (Dev.) 1974 9,300 39 1,14 12 13 50 5,100 160 850 12 100 100 10 100 10 100	Raymond Shi Raymond Shi Raymond Shi Raymond Shi	heridan k heridan (heridan k heridan k	lisku (Oev.) Dupero⊶ (Oev.) Finnipegosis (Oev.) Bed River (Ord.)	1972 1972 1972 1972	7,900 8,400 9,300 10,000	50 46 42	1.40 22 1.50 19 1.17 40	5	50 4,880 29 9,070 10 11,940	320 160 480 160	1,560 1,450 5,730	58 55 21	900 900 800 800 1,200 1,200	303 282 562	597 88,826 243 518 67,047 184 638 91,814 252 49 11,965 33	2,810 128 5,000 263 2,500 63 1,250 38
Restance Sharidan Vinnipegos (Sev.) 1988 9,400 1/2 1,10 34 8 1,140 150 2,150 23	Raymond, Northeast She Raymond, Northeast She Reagan Gla Red Greek Gla	heridan k heridan fi lacier h lacier (/Innipegosis (Dev.) Red River (Ord.) fadison (Miss.) Cut Bank (Cret.)	1974 1974 1947 1958	9,300 10,200 3,700 2,600	39 30 38 31	1,14 12 1,38 30 1,10 11 1,08 20	13 15 12 19	50 5,310 50 12,650 30 6,520 30 19,110	160 160 2,520 770	2,020 16,430 14,710	5 33 10 15 5	100 100 100 100 5,400 1,600 7,000 2,250 750 3,000	34 35 5,818 2,036	66 13,121 36 65 17,004 47 1.182 152,512 418 964 152,570 144	630 53 630 21 2,780 253 3,900 195 5,470 171
9 Rosebud Rosebud Rosebud Tyler (penn.) 1974 5,000 34 1,24 32 14 48 14,580 160 2,330 32 750 750 184 566 [43,7,09 394 4] Rush Mountain Sheridan Red River (ped.) 1968 12,000 39 1,62 14 10 33 4,490 320 1,440 35 500 500 7,76 224 2,000 500 2,76 224 2,000 500 2,76 224 2,000 500 2,76 224 2,000 500 2,76 2,70 2,70 12	Redstona Sha Repeat Car Reserve She RIchey, Southwest Mc(harldan b arter F herldan F cCone S	Vinnipegosis (Dev.) Red Rivar (Ord.) Rad Rivar (Ord.) Siluro-Ordovician	1958 1956 1966 1952	9,400 8,600 11,100 9,200	42 23 39	1,10 34 1.02 25 1.30 18	10 6	30 13,430 30 13,310 30 4,510 30 9,630	160 160 960 1,160	2,150 2,130 4,330	23 23 21	500 500 500 500 900 900	395 420 625 1,824	105 12,754 35 80 13,104 36 275 39,951 109 76 13,107 36	3,130 92 3,130 125 940 52 1,640 61
Slour Pass Slour	Rush Mountain She Salt Lake She Sand Creek Oav	osebud T herldan F herldan h awson R	fyler (Penn.) Red Alver (Ord.) Hisku (Oev.) Red Alver (Ord.)	1974 1968 1970 1959	5,000 12,000 7,900 9,000	34 39 43 39	1.24 32 1.62 14 1.50 23 1.30 25	1 ¹ / ₄ 10	48 14,580 33 4,490 35 8,510 40 8,950	160 320 480 880	2,330 1,440 4,080 7,880	32 35 10 28	750 750 500 500 400 400 2,200 2,200	184 276 199 2,096	566 143,709 394 224 23,560 65 201 27,519 75 104 37,390 102	4,690 147 1,560 111 830 37 2,500 100 730 24
Stensydd Musselshell Tyler (Penn.) 1958 5,500 33 1,17 25 14 20 18,570 1,360 25,260 30 16 7,500 41,500 9,944 1,556 108,185 296 8 9 Sumatra Rosebud Tylar (Penn.) 1949 4,500 32 1,16 30 19 35 24,780 5,520 136,790 24 10 32,000 13,500 46,500 30,172 16,358 108,185 1,916,637 5,7251 8 10 Tule Creek Roosavelt Hisku (Dev.) 1960 7,500 46 1,41 25 15 30 14,440 1,160 16,750 48 8,000 8,000 6,709 1,291 165,385 453 6 10 Ereek, South Roosavelt Hisku (Dev.) 1964 7,500 43 1,91 30 18 30 15,350 400 1,490 47 700 700 11 89 16,422 45 1 11 Ereek, South Roosavelt Hisku (Dev.) 1964 7,500 43 1,91 30 18 30 15,350 400 1,490 47 700 700 1611 89 16,422 45 1 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Sloux Pass Ric Sloux Pass North Ric Sloux Pass North Ric Sloux Creek Bis Spring Laka Ric Ric	lchland S lchland S ig Horn Tensi lchland R	Siluro-Ordovician Siluro-Ordovician Leep, Amsden, Madison (PennMis Nad River (Ord.)	1973 1974 s.) 1952 1963	12,700 12,000 1,900 11,700	47 45 20 51	1.70 40 1.60 44 1.05 20 2.00 9	12 15 12	35 10,680 40 15,360 35 14,410 30 2,930	960 1,600 340 900	10,250 24,580 4,900 2,640	24 6 45 27	2,500 2,500 1,500 1,500 2,200 2,200 700 700	953 364 1,848 613	1,647 283,185 776 1,136 128,685 353 352 51,686 142 87 20,209 55	2,600 65 940 21 6,470 324 780 87
Yida McCone Interlake (\$11.) 1963 9,300 51 1,40 33 2 56 1,610 320 520 67 350 350 350 258 92 5,161 14 1	Sumatra Ros Tule Creek Ros Tula Creek, East Ros	osebud T posavelt N	rytar (Penn.) Hisku (Oev.) Hisku (Dev.)	1958 1949 1960	7,500 7,500	32 46 43	1.16 30 1.41 25 1.91 30	19 15 18	20 18,570 35 24,780 30 14,440 30 15,350	5,520 1,160 400	136,790 16,750 6,140	24 10 48 34	7,500 4,000 11,500 33,000 13,500 46,500 8,000 8,000 2,100 2,100	30,172 6,709 1,905	16,328 1,916,637 5,251 1,291 165,385 453 195 26,890 74	8,460 338 8,420 281 6,900 276 5,250 175 1,750 219
Villow Creek, North Musselshell Tyler (Penn.) 1970 4,000 32 1,20 12 13 54 4,640 160 740 34 14 250 100 350 220 130 11,388 31 2 3 411 250 100 350 220 130 11,388 31 2 3 411 250 100 350 220 130	Vida McI Volt Roc Weldon McI whitlash LI	ccone	Interlake (SII.) Hisku (Dev.) Hibbey (Miss.) Wift, Sunburst (Jur.Cret.)	1963 1964 1964 1927	9,300 7,300 5,900 2,600	51 47 39 38	1.40 33 1.40 14 1.01 14 1.13 15	2	56 1,610 30 10,860 35 11,180 20 13,180	320 800 1,560 1,950	520 8,690 17,440 25,700	67 31 41 18	350 350 2,700 2,700 7,100 7,100 4,700 4,700	258 1,861 6,876 3,605	92 5,161 14 839 110,100 302 224 39,938 109 1,095 153,261 420	1,090 33 3,380 241 4,550 325 2,410 16)
Wright Creek Powder River Muddy (Cret.) 1969 4,800 35 1.10 5 26 48 4,770 480 2,290 9 200 172 28 8,786 24	Willow Creek, North Mus Wills Creek, South Fal Winnett Junction Mus Wolf Springs Yel	usselshell] allon usselshell] <u>ello</u> wstone A	Tyler (Penn.) Interlake (Sil.) Tyler (Penn.) Imsden (Penn.)	1970 1964 1973	4,000 8,700 2,500	33 28 30	1.20 12 1.20 12 1.10 12 1.07 11	13 18 18	54 4,640 35 9,080 30 10,660	160 320 160	740 2,910 1,710 14,130	34 14 32 20 33	250 100 350 900 900 350 350 4,600 4,600	220 713 157	130 11,398 31 187 38,094 104 193 48,538 133 120 15,414 42	2,190 183 2,810 234 2,190 183 1,700 109 2,190
255,000 32,843,674 89,982	Wright Creek Po-							26				9		172	28 8,786 24 1,313 278,625 763	420 84



GENERALIZED STRATIGRAPHIC CORRELATION CHART

SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

WONTANA BOAR	OF OIL AND GAS	s CONSERVA	TION						. ∲ GAS 975						CHARLES G. MAIO, GEOLOGIST -	— JUDSO	V O. SWEET, PET	ROLEUM ENGINEER
ERA	PERIOD	9		CRAZY MOUNTAIN BASIN	BIG HORN BASIN	SOUTH CENTRAL MONTANA	CENTRAL MONTANA		SWEETGRASS ARCH		TH CENTRAL MONTANA	NORTH POWDER RIVER BASIN		WILLISTON BASIN			RIOO	ERA
CENOZOIC	TERTIARY		BEAVERHEAD -	TONGUE RIVER LEBO	FORT UNION		FORT TONGUE RIVE			wituu	FORTUNION	FORT TONGUE RIVER WINION TULL OCK	F	ORT TONGUE RIVER				
CENOZOIC	TENTAN			TULLOCK HELL CR LENNEP BEARPAW	LANCE MEETEETSE	HELL CREEK LENNEP BEARPAW	HELL CREEK FOX HILLS BEARPAW	dig	WILLOW CREEK ST. MARY RIVER HORSE THIEF BEARPAW		HELL CREEK FOX HILLS	HELL CREEK FOX HILLS	- Q	HELL CREEK E				
ì		UPPER		JUDITH RIVER CLAGGETT CLAGGETT	MESA VEROE	JUDITH RIVER *ORY CREEK, RAPELJE, LAKE BASIN, N. LAKE BASIN TO PROPERTY OF THE	JUOITH RIVER VALUE CLAGGETT EAGLE VIRGELLI	-	JUDITH RIVER ON CLAGGETT WE EAGLE VIRGELLE	ANA CLA	AGGETT & BOW	R RIDGE, SHERARO, WN'S COULEE, BOWES, LWACKER, ES, BOX ELOER, CK COULEE, TIGER CK COULEE, TIGER	NTANA	CLAGGETT	ÇCEOAR CREEK, PLEVNA. ÇCEOAR CREEK	UPPER		
	CRETACEOUS			TELEGRAPH CR. NIOBRARA-CARLILE FRONTIER	FRONTIER • ELK BASIN, NW. ELK BASIN, CLARK	TELEGRAPH CR. ALAKE BASIN NIOBRARA-CARLILE GREENHORN ZC DORY CREEK, HAROIN, NORTH LAKE BASIN	NIOBRARA-CARLILI	w January	TELEGRAPH CREEK MARIAS RIVER SHALE	NIOB OR	RIOGI	LEE, BULLWACKER. OOIN ELAREDO, SHERARO, TELEGRAPH CREEK NIOBRARA-CARLILE GREENHORN BELLE FOURCHE		TELEGRAPH CREEK NIOBRARA-CARLILE GREENHORN BELLE FOURCHE		:	CRETACEOUS	
MESOZOIC			MONTANA- COLORAGO	MOWRY MUOOY SKULL CR	MUDOY SKULL CREEK	MOWRY MUDOY SKULL CREEK	MOWRY MUODY SKULL CREEK	СОГОВАЛО	BLACKLEAF BOW IS	# EAST KEITH, FLAT COULEE, RATTLESNAKE COULEE # WHITLASH, GRANOVIEW, SOUTH OEVON, BERTHELOTE OEVON, HAVSTACK BUTTE, PRITCHARO CREEK, ARCH APEX SOUTH CONRAO, MIODLE BUTTE, WEST REAGAN.	MOWRY	MOWRY MUDOY (NEWCASTLE	S BELL CREEK BELL CREEK, ROUGH CREEK, WRIGHT CREEK, LEARY	MOWRY MUDOY (NEWCASTLE) SKULL CREEK				
		LOWER	GROUPS KOOTENAI	OAKOTA CONTENAL CONTE	DAK. SILT DAKOTA ONEYBULL FUSON LAKOTA NORTH CLARKS FORK, ELK BASIN. BELERY, MACKAY, OEAN, CLARKS FO CLARKS FORK NORTH CLARKS FORK, ROSCOE	DAK. SILT DAKOTA LAKE BASIN, LAUREL. ORY CREEK, MOSSER. OFF CREEK DRY CREEK DRY CREEK	BASAL COLO. SILT DAKILI CAT CREEK 2 Nd CA KOOTENAI CREEI 3 ^{MC} CAT CREE	1		** CRAMOVIEW WEST BUTTE, CUT BANK, KEVIN-SUNBURST, FLAT COUCEE, SHELEY, TRAIL CREEK, E.KELTH ** BLACKFOOT, CUT BANK, RED CREEK, WHITLASH, GRABEN COULEE, MIMERS COULEE, ALLESHAKE COULEE. ** BEARS DEN, KEITH, WHITLASH, WHITLASH W, BLACK JACK, MINER'S COULEE, MERCH SON, KEVIN-SUNBURST, WHITLASH W WEST, GRABEN COULEE.	OAKOTA KOOTENAI	PASAL COLO SILT DAKOTA FUSON (KOOTENAI LAKOTA	1 [BASAL COLO SILT DAKOTA FUSON (KOOTENAI) LAKOTA		LOWER		MESOZOIC
		UPPER 3	MORRISON SWIFT	MORRISON SWIFT BERDON	> Marianananananananananananananananananana	MORRISON SWIFT S	MORRISON SWIFT RIEROON	CAT CREEK (WEST, MOSBY, EAST & ANTELOPE DOMES)	MORRISON SWIFT	MINER'S COULEE, LAIRD CREEK, ETHRIOGE, BLACK JACK. BANNATYNE, KEVIN-SUNBURST, WHITLASH, FLAT COULEE, GRANOVIEW, LAIRO CREEK, ARCH APEX, FREO E GEORGE	MORRISON SWIFT	MORRISON	di)	MORRISON		UPPER		
	JURASSIC	MIDOLE	SAWTOOTHA	S	GYPSUM SPRING	PIPER FIREMOON TAMPICO	S BOWES	SUMATRA, WOLF SPRINGS.	AWTOOTH	• KEVIN-SUNBURST.	SAW TOOTH BOWE	ACIAN COULEE NORTH ES, TIGER RIOGE, GYPSUM SPRING BIT HILLS.		PIPER BOWES FIREMOON TAMPICO KLINE PICARD POE		MIDOLE	JURASSIC	
	TRIASSIC	IOWED?	THAYNES WOODSIDE	CHUG WATER DINWOODY	CHUGWATER	CHUGWATER DINWOODY						CHUGWATER SPEARFISH		SAUOE PEARFISH PINE SALT		LOWER ?	TRIASSIC	
	PERMIAN	F	PHOSPHORIA	PHOSPHORIA	PHOSPHORIA • ELK BASIN, NW ELK BASIN.	PHOSPHORIA					S. 194	OU MINNEKAHTA		MINNEKAHTA			PERMIAN	
	PENNSYLVANIAN		OUADRANT AMSOEN	TENSLEEP AMSOEN	TENSLEEP SNYOER. AMSOEN DARWIN ELK BASIN, FRANNIE, NW ELK BASIN	TENSLEEP AMSOEN	AMSDEN	MUO CREEK BIG WALL, DELPHIA, GAGE, MIBBARO, SUMATRA, WOLF SPRINGS, POLE CREEK, WEEO CREEK, CAT CREEK. WINNETT JUNCTION, LITTLE WALL, HIWARTHA, MIJUN CEEK, RAGGED POMT, BIG WALL, WANNOE REGOOULER, MELSTONE, JIM C. AFLIEC STERWEG HOWARD COULER, SHEEPPREAPER, ROSEBUD, GUMBO ROG HOWARD COULER, SHEEPPREAPER, ROSEBUD, GUMBO ROG			11 (1 m)	MINNELUSA AMSDEN	LOOGE GRASS, SOAP CREEK, SNYDER	INNELUSA AMSOEN TYLER			PENNSYLVANIAN	
	MISSISSIPPIAN	1/	MAOISON SAPPINGTON	CHARLES OMISSION CANYON LDOGEPOLE SAPPINGTON	MAOISON • ELK BASIN, NW ELK BASIN.	MAOISON	HEATH OTTER KIBBÉY CHARLES ON MISSION CANYON ON DEPOLE BAKKED	• RAGGEO POINT	SUN RIVER MISSION CANYON CONTROL LODGEPOLE	# BEARS OEN LITTLE BEARS OEN LITTLE BEARS OEN MILES BEARS OEN MILES BEARS OEN MILES BEARS OEN MILES BEARS OEN CONTROL BEARS BUTTE. REO CREFK & GYPSY BASIN GRABEN COULTE SE	CMARLES MISSION CANYON LOOGEPOLE BAKKEN	Ga CHARLES GA MISSION CANYON LODGEPOLE	© SOAP CREEK Z.C.	CHARLES	◆ WELOON, EAST COW CREEK ♦ FLAT LAKE, SHOTGUN CREEK, SMOKE CREEK, KATY LAKE, OWYER, POPLAR, RICHEY, PRAIRIE ELK, COW CREEK, VOLT, MINERAL BENCH, GAS CITY, GOOSE LAKE, RIPRAP'C. ♦ SIDNEY, BRORSON, CABIN CREEK, MONARCH, PENNEL, POPLAR, OUTLOOK, HAROSCRABBLE CREEK, SHOTGUN CREEK, SOUTH FLAT LAKE, SIOUX PASS. ♦ PINE, PENNEL, LOOKOUT BUTTE, SALT LAKE.		MISSISSIPPIAN	
PALEOZOIC	DEVONIAN	UPPER	THREE FORKS JEFFERSON MAYWOOD	THREE FORKS NISKU OUPEROW SOURIS RIVER	THREE FORKS NISKU OUPEROW	THREE FORKS JEFFERSON	OUPERON SOURIS RIVER		OTLATCH NISKU DUPEROW SOURIS RIVER	THE	HREE FORKS NISKU DUPEROW DURIS RIVER	JEFFERSON GROUP	(S)	THREE FORKS BIROBEAR (NISKU) DUPEROW	TULE CREEK, BENRUO, E BENRUO, LONE TREE, SPRING LAKE, NE. BENRUO, VOLT, SO. TULE CREEK, E. TULE CREEK, RED FOX, SALT LAKE, CHELSEA CREEK, RAY- MONDO OUTLOOX, MINERAL BENCH, WOODROW	UPPER	DEVONIAN	
		M100LE	MA1 #000		BEARTOOTH BUTTE	BEARTOOTH BUTTE							H 8000	PRAIRIE EVAP WINIPEGOSIS ASHERN	SW RICHEY. REO STONE, OUTLOOK, WEST OUTLOOK, FAIRVIEW, RESERVE, RUSH MOUNTAIN, RAYMONO, NE. RAYMONO N SIOUX PASS	M10DLE LOWER		PALEOZOIC
	SILURIAN										INTERLAKE	INTERLAKE		INTERLAKE	BIG MUODY CREEK SIOUX PASS, N. SIOUX PASS, OCER CREEK, MONARCH, OUTLOOK, PENNEL, PINE, SAND CR. SW. RICHEY, CABIN CR., COXOUT BUT TE, WILLS CR., WOODROW, VIDA. RESERVE.		SILURIAN	
	ORDOVICIAN	LOWER	BIG HORN BIG HORN	LEIGH BIG HORN LANDER	BIG HORN LANDER	REO RIVER				STONY MTN	STONY MTN. RED RIVER BIG HORN WINNIPEG		STONY MTN.	GLENOIVE, LOOKOUT BUTTE, PENNEL, WOOOROW OUNNS CR. NOHLY RAYMOND, SECONO CREEK, CUPTON, CABIN CR., OEER CR., GLENOIVE, LITTLE BEAVER, LITTLE BEAVER EAST, MONARCH, OUTLOOK, PENNEL, PINE, REPEAT SANO CR., WILLS CR., FERTILE, PRAIRIE, LOOKOUT BUTTE, WOOOROW, RESERVE, GAS CITY, FAIRYIEW, BROPSON, RUSH MTN. SPRING LAKE.		OROOVICIAN		
	CAMBRIAN	UPPER MIOOLE	REO LION PILGRIM PARK MEAGHER SLVER HILL WOLSEY FLATHEAO	GROVE CREEK SNOWY RANGE PILGRIM PARK MEAGHER WOLSEY FLATHEAD	GROVE CREEK GALLATIN GROS VENTRE FLATHEAO	GROVE CREEK GALLATIN GROS VENTRE	PILGRIM PARK MEAGHER WOLSEY		OEVIL'S GLEN DOL, SWITCHBACK SHALE STEAMBOAT LIMESTONE PEARBORN LIMESTONE DARNARTON LIMESTONE DANNARTON LIMESTONE DOROON SHALE		CAMBRIAN	GROS VENTRE		WINNIPEG OWER OROO.	CREEK, GIRARO, CANAL, FT. GILBERT, OTIS CR., LONETARE SIDUX PASS, N. SIDUX PASS, LONE BUTTE, NE. RAY- MOND, BIG MUOOY CREEK.	UPPER MIOOLE	CAMERIAN	
PROTEROZOIC	PRE-CAMBRIAN	LOWER	BELT	BELT		FLATHEAO BELT	FLATHEAD PURPLE PROPERTY OF THE PROPERTY OF TH		STEPPARD OOL SIYEH PURCELL LAVA GR'P, SPOKANE SH. LOWER SIYEH RAY- GRINNEL SH.							LOWER	PRE-CAMBRIAN	PROTEROZOIC
ARCHEOZOIC					METAMORPHIC	ANO	m		ALLI APPEKUNNY OT GR'P ALTYN LS	ROCKS								ARCHEOZOIC
											1	•			* SDME FIELDS SHOWN ARE DEPLETED O	R ND LONGER	PRODUCTIVE.	





